

It is certified that a copy of this Protest has been served in its entirety on the applicant's attorney of record pursuant to 37 C.F.R. §§ 1.291(a)(2) and 1.248 by first class mail on July 12, 2004. The name and address of the attorney of record served is: Richard J. Ward, Jr., Christie Parker & Hale, LLP, P.O. Box 7068, Pasadena, CA 91109-7068.

Dated: July 12, 2004

Signature: David L. Fehrman

(David L. Fehrman)

#17
J. Douglas
8/16/04

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Reissue Patent Application of:

WASHINO ET AL.

Serial No.: 10/004,046

Filing Date: October 24, 2001

Title: MULTI-FORMAT AUDIO/VIDEO
PRODUCTION SYSTEM

Group No.: 2614

Examiner:

David E. Harvey

RECEIVED

JUL 14 2004

Assistant Commissioner for Patents

Washington, D.C. 20231

ATTENTION: Technology Center 2600

Technology Center 2600

PROTEST UNDER 37 C.F.R. § 1.291(a)

This protest is directed to all 228 pending claims (nos. 26-33 and 36-255) in the above-identified reissue application and is filed in accordance with the Manual of Patent Examining Procedure (MPEP) §§ 1441.01 and 1900 et seq. The application is a continuation of U.S. Patent No. RE 38,079, which in turn is a reissue of U.S. Patent No. 5,537,157, and is assigned to Multi-Format, Inc. ("Multi-Format"). This protest is filed on behalf of the following companies: Amazon.com, Inc., Buena Vista Home Entertainment, Inc., DreamWorks LLC, Funai Electric Co., Ltd., LG Electronics Inc., Lions Gate Entertainment Inc., Metro-Goldwyn-Mayer Studios Inc., the Motion Picture Association of America, Inc. (MPAA), Paramount Pictures Corporation, Pioneer Electronics (USA) Inc., Playboy Entertainment Group, Inc., Samsung Electronics Co., Ltd., Sanyo Electric Co., Ltd., Sharp Corporation, Sony Electronics Inc., Sony Pictures Entertainment Inc., Thomson, Inc., Toshiba America Information Systems, Inc., Twentieth Century Fox Film Corporation, Victor Company of Japan, Ltd., the Video Software Dealers Association (VSDA), Vivendi-Universal Entertainment LLLP, Wal-Mart Stores, Inc., and Warner Bros. Entertainment Inc. (the "Protestors").

The Protestors submit that the claims are unpatentable based upon each of the following grounds:

- lack of error due to restriction acquiescence;
- recapture estoppel;
- lack of support under 35 U.S.C. § 112, first paragraph;
- anticipation and obviousness in view of the following prior art:
 - U.S. Patent No. 5,930,445 to Peters et al.;
 - ISO/IEC 11172 (pts. 1 & 2) (1st ed. Aug. 1, 1993);
 - Jan van der Meer (of Philips Consumer Electronics, Eindhoven, The Netherlands), *The Full Motion System for CD-I*, IEEE Transactions on Consumer Electronics, vol. 38, no. 4 (Nov. 1992);
 - Japanese Patent Laid-open No. HEI 2-89478 (laid open March 29, 1990);
 - U.S. Patent No. 5,463,565 to Cookson et al.;
 - U.S. Patent No. 5,461,420 to Yonemitsu et al.

The following Background section provides an explanation of the broad scope of claims Multi-Format seeks to obtain, which became clear during litigation initiated by Multi-Format itself concerning the parent '079 reissue patent. Part 1 discusses Multi-Format's non-entitlement to the claims it presently seeks, based on restriction and acquiescence in the original patent application, recapture estoppel because of Multi-Format's surrender of subject matter it now seeks to cover, and the requirements of 35 U.S.C. § 112. Part 2 applies certain prior art – including Peters which was cited during prosecution, and other art – to the present application and discusses how such prior art renders the presently pending claims unpatentable.

I. BACKGROUND

One reason for this Protest is that Multi-Format has not made any disclosure of recent significant events that raise substantial questions regarding patentability – despite its direct involvement with these events. Due to such non-disclosure in any papers subsequent to such events, including Multi-Format's June 1, 2004 office action response, the Protestors concluded that Multi-Format in fact had no intention of disclosing these matters to the Examiner and thus proceeded with this Protest.

A. Related Litigation and Broad Infringement Allegations Regarding Parent U.S. Patent No. RE 38,079

One key event of which Multi-Format has not informed the Examiner is a related lawsuit that it filed in federal court subsequent to the filing of the present reissue application. On August 8, 2003, Multi-Format filed a patent infringement lawsuit against eleven major retailers, asserting broad coverage of the parent U.S. Patent No. RE 38,079 (copy attached as Exhibit 1).¹ The existence of this litigation was never brought to the attention of the Examiner, despite the requirements of 37 C.F.R. § 1.178 (see also MPEP §§ 1418 and 1442.04) and MPEP § 2001.06(c). Significantly, although the '079 patent is directed to a video post-production system used for editing, Multi-Format's infringement accusations during the litigation were far broader. In its complaint, Multi-Format alleged that all DVD players, essentially all DVDs, all personal computers equipped with DVD drives, and all personal computers not equipped with DVD drives but which have the ability to download video programs via the Internet infringe the '079 patent. See Exh. 1, ¶¶ 17-37.

Around the same time, Multi-Format made similarly broad infringement accusations in a separate document entitled "DVD, DVD Player, and Personal Computer Licensing Program"

¹ The '079 patent matured from reissue application serial no. 09/113,615, of which the present application is a continuation application.

(hereinafter "Licensing Program") (copy attached as Exhibit 2), sent to a large number of motion picture studios, consumer electronics manufacturers, computer manufacturers, and DVD player and disc retailers, including most of the Protestors. In its Licensing Program document, Multi-Format made the following sweeping assertions:

- "Multi-Format's U.S. Patent No. RE 38,079 is a pioneering patent"
- "The '079 patent is . . . required to practice DVD technology."
- "The '079 patent is . . . essential to the sales of DVD discs."

Exh. 2 at 2, 4, 7, 9; *see also id.* at 12-22. Moreover, Multi-Format also made it clear that even broader claims were in the offing, putting the recipients of the Licensing Program on notice that "Washino and Schwab have filed additional claims in a continuation reissue patent application . . . if those claims issue in their present form, they will cover additional products and methods using the 24P format." Exh. 2 at 9.

The financial implications flowing from Multi-Format's asserted claim scope and proposed licensing scheme are potentially staggering, and cut across several different industries.

Multi-Format's Licensing Program describes a proposed royalty scheme of:

- 3 cents per DVD disc sold and 2 cents per DVD disc rented in the U.S.
- \$2.00 per DVD player sold in the U.S.
- \$3.00 per computer with a DVD drive sold in the U.S.
- \$2.00 per computer without a DVD drive.

Exh. 2 at 8, 23. Applied to just 2003, it is estimated that this royalty scheme would have required payments to Multi-Format exceeding \$200 million. Considering the life of the patent, the stakes are well over \$1 billion.

Following Multi-Format's filing of the lawsuit and distribution of its Licensing Program documents, certain of the Protestors pointed out to Multi-Format that its theory of infringement was flawed. Multi-Format was apparently convinced, as it abruptly dismissed the lawsuit before defendants ever responded to the Complaint. *See* Exhibit 3 (December 31, 2003 letter from Multi-Format's Counsel to Defendants' Counsel). After the dismissal, Multi-Format's counsel sent a letter to the defendants and certain of the Protestors acknowledging that there were, in fact, "substantial questions of infringement." *Id.* at 1. However, Multi-Format went on to warn that it "has pending an additional continuation application [the present reissue application] which could result in the issuance of claims" that cover "certain DVD replicating and DVD player apparatus and methods." *Id.* at 1. Thus, it is clear that in these proceedings, Multi-Format is now attempting to obtain claims that will overcome the shortcomings that compelled it to dismiss its original lawsuit, and which may cover the wide range of products accused therein.

Notably, Multi-Format's December 31, 2003 letter also stated that its decision voluntarily to dismiss the lawsuit was based, at least in part, upon information it had received from the industry concerning prior art. *Id.* at 1. This prior art was apparently more relevant than that found by the so-called "patent buster," who Multi-Format claimed had failed to "bust" the '079 patent. *See* Exh. 2 (Licensing Program) at 11. Whatever the case, no prior art has been submitted by Multi-Format in this application since the dismissal of the litigation, and whatever art was found has not been placed before the Examiner.

B. Multi-Format is Claiming Numerous Different Inventions

In the original '157 patent, all of the claims were directed to an overall audio/video production system or method including conversion to an internal production format. In contrast, in the present reissue application, only one claim, claim 255, is directed to such an overall production system or method. Moreover, while the claims of the '157 patent were classified in

class 348, subclass 722, namely, "STUDIO EQUIPMENT," all but one of the 228 pending claims of the present application are directed to completely different articles, systems or methods as follows:

I - a storage medium having a video program stored thereon (e.g., presumably intended to cover DVDs)

Independent claims 26, 38, 151 and 243 and dependent claims 27-33, 36, 37, 113, 152-176 and 244-251.

II - a system for viewing video information from a storage medium (e.g., presumably intended to cover DVD players)

Independent claims 60 and 74 and dependent claims 61-73, 111, 112, 126-136 and 193-210.

III - a method of viewing video information from a storage medium (e.g., presumably intended to cover use of a DVD player)

Independent claims 75 and 94 and dependent claims 76-93, 137-143 and 211-226.

IV - a system for receiving and viewing video information (e.g., presumably intended to cover a PC with Internet connections)

Independent claims 39 and 59 and dependent claims 40-58, 110, 114-125 and 177-192.

V - a method of receiving and viewing video information (e.g., presumably intended to cover use of a PC to download video programs)

Independent claims 95 and 109 and dependent claims 96-108, 144-150 and 227-242.

VI - a system for producing an RGB video signal

Independent claim 252 and dependent claims 253 and 254.

See Exhibit 4 (List of Claims Pending in Present Application, Also Showing Dependencies).

Thus, other than claim 255, none of the pending claims are directed to an overall audio/video production system or method including conversion into an internal production format, as were the claims of the original '157 patent. Rather, they are directed to either a

storage medium having a video program stored on it (which the Examiner fully recognized in his Nov. 26, 2003 office action at page 17 as not even being described in the specification) or a viewing device only and corresponding method, or a receiving device only and corresponding method. It is apparent from the prior litigation as well as Multi-Format's stated intentions in its communications regarding dismissal of that litigation that the new claims are not restricted in any fashion whatsoever to an audio/video production system or studio equipment. Rather, they are clearly intended to cover mass-distributed DVDs per se and consumer playback devices having nothing to do whatsoever with video production, such as DVD players and personal computers with DVD drives and/or Internet capability. These groups of claims obviously are not properly classified in class 348/722, once the true scope of the protection sought is understood. They are more properly classified in some other subclass of class 348 or more likely somewhere in class 386 or class 369. In any event, Multi-Format is not entitled to prosecute any of these claims in a reissue application, for several reasons discussed below.

In the current reissue application, Multi-Format has voluntarily selected claims in Groups II and III, namely, a system for viewing from a storage medium and a method for viewing information from a storage medium. All of the claims identified by Multi-Format are in these two groups.

It is noted that a number of the claims in Groups I – V include recitations of some sort regarding conversion of an input format into an intermediate format. However, although heavily relied upon by Multi-Format, none of these recitations provide actual positive limitations to the claimed structure or claimed method. They simply attempt to define how a certain signal was obtained, outside of the positive limitations of the particular claim. These definitions do not in any way serve to limit the nature of the resulting signal per se (or the product that carries it), or

operations performed in reading out and displaying the signal. These recitations are therefore entitled to no weight whatsoever in determination of the different inventions Multi-Format is claiming. Similarly, these recitations are entitled to no weight in determination of patentability over the prior art, as discussed in detail below.

PART 1

Restriction Acquiescence Recapture Estoppel 35 U.S.C. § 112

II. MULTI-FORMAT IS NOT ENTITLED TO PROSECUTE CLAIMS TO INVENTIONS DIFFERENT FROM THOSE ORIGINALLY ELECTED

Multi-Format has presented claims directed to many different categories, apparently assuming that it is free to prosecute any claims it wants. However, this is not the case. More particularly, during prosecution of the original '157 patent, there was a restriction requirement and an election by the applicant. No divisional applications were filed. Failure to timely file divisional applications on non-elected inventions is not an error which is correctable by reissue. This situation is specifically addressed in MPEP § 1412.01, the main heading of which is "Reissue Claims Must Be For Same General Invention." That section addresses the effect of failure to file a divisional application, as set forth below:

>FAILURE TO TIMELY FILE A DIVISIONAL APPLICATION PRIOR TO ISSUANCE OF ORIGINAL PATENT

Where a restriction requirement was made in an application and applicant permitted the elected invention to issue as a patent without the filing of a divisional application on the non-elected invention(s), the non-elected invention(s) cannot be recovered by filing a reissue application. A reissue applicant's failure to timely file a divisional application covering the non-elected invention(s) in response to a restriction requirement is not considered to be error causing a patent granted on the elected claims to be partially inoperative by reason of claiming less than the applicant had a right to claim. Accordingly, such error is not correctable by reissue of the original patent under 35 U.S.C. 251. *In re Watkinson*, 900 F.2d 230, 14 USPQ2d 1407 (Fed. Cir. 1990); *In re Orita*, 550 F.2d 1277, 1280, 193 USPQ 145, 148 (CCPA 1977). See also *In re Mead*, 581 F.2d 251, 198 USPQ 412 (CCPA 1978). In this situation, the reissue claims should be rejected under 35 U.S.C. 251 for lack of defect in the original patent and lack of error in obtaining the original patent. Compare with *In re Doyle*, 293 F.3d 1355, 63 USPQ2d 1161 (Fed. Cir. 2002) where the court permitted the patentee to file a reissue application to present a so-called linking claim, a claim broad enough to read on or link the invention elected (and patented) together with the invention not elected. The non-elected invention(s) were inadvertently not filed as a divisional application.<

The law is clear – after a restriction and election in an original patent application and failure to file a divisional on any non-elected inventions, claims to non-elected inventions cannot be later presented in reissue.

This is precisely the situation in the current reissue application. The application which ultimately issued as the '157 patent was originally filed with twenty-one claims. The Examiner issued an Office Action (copy attached as Exhibit 5) including a restriction requirement between Group I, including claims 1-20, drawn to a system for converting an image into multiple formats, and Group II, including claim 21, drawn to a video production system for generating an image, stating that they were directed to distinct subcombinations. The Office Action indicates on page 9 that a provisional election was made without traverse to prosecute claims 1-20 and indicated that affirmation of the election must be made by the applicant in responding to the Office Action. Claim 21 was withdrawn from consideration. In responding to the Office Action the applicant affirmed the election by canceling claim 21 (copy of Amendment attached as Exhibit 6).

The applicant prosecuted claims 1-20 to allowance and the claims issued in the '157 patent. As far as can be determined, no divisional application was filed directed to the non-elected claim, or any other invention. Therefore, in accordance with MPEP § 1412.01 and the Federal Circuit cases cited in the above-noted portion (copies of cases attached as Exhibits 7, 8, 9, and 10, respectively), claims to non-elected inventions cannot be recovered by filing a reissue application. There is no error correctable by reissue. *See, e.g., In re Watkinson*, 900 F.2d 230, 231-32, 14 U.S.P.Q.2d 1407 (Fed. Cir. 1990) (Exhibit 7) (“[T]he failure to file a divisional application, regardless of the propriety of the underlying restriction requirement, is not an error correctable by reissue under 35 U.S.C. § 251.”).

Moreover, the prohibition against claims directed to non-elected inventions is not limited just to claims that were presented in the original application and subject to a restriction requirement. This situation was addressed by the Federal Circuit in *In re Weiler*, 790 F.2d 1576, 229 U.S.P.Q. 673 (Fed. Cir. 1986) (copy attached as Exhibit 11). In *Weiler*, the reissue applicant presented claims directed to subject matter “not claimed at all in the original application.” *Id.* at 1580. The Court stated that “Weiler was seeking to claim subject matter entirely distinct from anything anywhere earlier claimed or attempted or intended to be claimed, and was not seeking to obtain a broadened or narrowed claim to subject matter claimed in the patent proffered for surrender.” *Id.* With respect to the requirement of “error” to support a reissue application, the Court stated:

The reissue statute was not enacted as a panacea for all patent prosecution problems, nor as a grant to the patentee of a second opportunity to prosecute de novo his original application.

Id. at 1582.

The Court concluded by stating:

Significantly, Weiler accepted issuance of the ‘923 patent with its claims to a single elected invention. By acquiescing in the examiner’s restriction requirement, and failing to file divisional applications on the subject matter of non-elected claims, Weiler foreclosed (because that was not error) his right to claim that subject matter. If it were not error to forego divisional applications on subject matter to which claims have been made in the original application, it cannot on the present record have been error to forego divisional applications on subject matter to which claims had never been made.

Id. (emphasis added).

The Board of Patent Appeals and Interferences recently followed *Weiler* when faced with a similar situation. In *Ex parte Pagilagan*, Appeal No. 2001-1752, 2002 Pat. App. LEXIS 198 (B.P.A.I. 2002) (copy attached as Exhibit 12), the Board stated:

It cannot be 'error' to fail to include claims to subject matter which Appellant had no right to include in the first place. There was no right to claim a process in the original patent because Appellant acquiesced in a restriction requirement that limited the claims to a copolyamide composition and articles. If the Applicant cannot claim the subject matter in the original application, he has no 'right to claim' it in the reissue.

Id. at *17.

In the present reissue application, only claim 255 is directed to subject matter that was elected and prosecuted to issuance in the original application. All of the remaining claims are directed to completely distinct subject matter, such as a storage medium (Group I), a system and method for viewing from a storage medium (Groups II and III), a system and method for receiving and viewing video signals (Groups IV and V) and a system for producing an RGB video signal (Group VI), which also corresponds to non-elected claim 21 of the original application. A storage medium having a video signal recorded on it is completely distinct from the overall system and method claimed in the '157 patent, and forms no part of the original claims of the '157 patent. An already recorded storage medium is completely distinct from a recordable storage medium as set forth in original claims 1 and 14. Similarly, claims directed to systems and methods for viewing video signals from a storage medium and systems and methods for receiving and viewing video signals are completely distinct from the overall system and method claims prosecuted in the original patent that include limitations regarding conversion into a production format. Even if these claims are viewed as a subcombination of the overall combination, as claimed they do not require the particulars of the combination (since there is no possible limitation of converting to a production format). They certainly have utility separate from the combination, *i.e.*, as playback-only devices and methods. *See* MPEP § 806.05(c). Finally, the three claims directed to a system for producing an RGB video signal correspond directly to the non-elected claim 21 of the original application.

In view of the restriction requirement and acquiescence during prosecution of the original patent, Multi-Format is simply precluded from presenting claims directed to all of these different inventions. The applicant failed to file divisional applications directed to any of these different non-elected inventions. This failure to file divisional applications is not an error correctable by reissue.

The MPEP provides direction regarding the nature of a rejection to be given in this instance. Section 1412.01 states that the reissue claims should be rejected under 35 U.S.C. § 251 for lack of defect in the original patent and lack of error in obtaining the original patent.

It is noted that the present situation is not like that in *In re Doyle* cited in the MPEP, in which a generic linking claim was permitted in reissue after an election of species. The restriction and election requirement in the original application in the present case was to distinct inventions, not species. The presence of three different species in the disclosure here is irrelevant to the restriction to distinct inventions given in the original application and the distinct inventions now claimed by the applicant. Indeed, applicants themselves have made a voluntary election not only of one particular species but also just of claims directed to Groups II and III within the elected species. They have even noted that claim 39 reads on the elected species, but is non-elected. See Multi-Format's June 1, 2004 Amendment (copy attached as Exhibit 13) at 13. They have essentially acknowledged that the various groups of claims are distinct.

In summary, each of claims 26-254, directed to subject matter wholly separate from that claimed in the original patent, should be rejected under 35 U.S.C. § 251 for lack of defect in the original patent and lack of error in obtaining the original patent. The applicant's acquiescence to the restriction requirement and failure to file any divisional applications precludes a finding of error.

III. MULTI-FORMAT IS IMPROPERLY SEEKING TO RECAPTURE SUBJECT MATTER SURRENDERED DURING PROSECUTION OF THE ORIGINAL PATENT

Separate from the issue of restriction acquiescence, Multi-Format is precluded from obtaining any of claims 26-251 due to the doctrine of recapture estoppel. This situation is dealt with in great detail in MPEP § 1412.02, entitled "Recapture of Canceled Subject Matter." The section opens with a statement that "[a] reissue will not be granted to 'recapture' claimed subject matter which was surrendered in an application to obtain the original patent." Among other cases, the section cites to *Pannu v. Storz Instruments, Inc.*, 258 F. 3d 1366, 59 U.S.P.Q.2d 1597 (Fed. Cir. 2001); *Hester Industries, Inc. v. Stein Inc.*, 142 F. 3d 1472, 46 U.S.P.Q.2d 1641 (Fed. Cir. 1998), and *In re Clement*, 131 F. 3d 1464, 45 U.S.P.Q.2d 1161 (Fed. Cir. 1997), copies of which are attached as Exhibits 14, 15, and 16, respectively. These cases, and the MPEP, set forth a three-step test for recapture analysis. This test is reproduced from the MPEP below:

I. THREE STEP TEST FOR RECAPTURE:

In Clement, 131 F.3d at 1468-70, 45 USPQ2d at 1164-65, the Court of Appeals for the Federal Circuit set forth a three step test for recapture analysis. In *Pannu*, 258 F.3d at 1371, 59 USPQ2d at 1600, the court restated this test as follows:

Application of the recapture rule is a three-step process.

The first step is to determine whether and in what aspect the reissue claims are broader than the patent claims.

The second step is to determine whether the broader aspects of the reissued claim related to surrendered subject matter

Finally, the court must determine whether the reissued claims were materially narrowed in other respects to avoid the recapture rule. [Emphasis added]

MPEP § 1412.01 I.

Application of this test in the present case demonstrates that Multi-Format is not entitled to any of claims 26-251 because every one of these claims is an attempt to impermissibly recapture subject matter which was surrendered during prosecution of the original patent.

A. The First Step - The Reissue Claims are Broadened in Comparison with the Scope of the Patent to be Reissued

As set forth in the MPEP, a reissue claim is broadened where some limitation of the patent claims is no longer required in the reissued claim. The meaning of "broadened reissue claim" is discussed in detail in MPEP § 1412.03. Here, the claims are broadened in many respects as compared to the original patent claims. Only one respect is addressed here. In particular, each of the original independent claims of the '157 patent contains a positive limitation regarding conversion of the display format of a video program into an intermediate production format. None of the reissue claims contain such a limitation. The claims have clearly been broadened with respect to the original claims of the patent.

More particularly, claim 1 of the original '157 patent includes the following limitation:

a graphics processor connected to receive the audio/video program and convert the display format of the program into an intermediate production format.

'157 Patent, col. 14, ll. 21-23.²

In addition, claim 14 of the original patent includes a similar limitation:

means to convert the input program into a 24 frames-per-second (fps) production format, if not already in such a format for storage within the high-capacity video storage means and for review on the color display.

'157 Patent, col. 16, ll. 15-18.

Claim 20 of the original patent also includes a similar limitation:

² Claim 1 also recites that one function of the claimed "controller" is to cause "the conversions of an audio/video program into the production format." '157 Patent, col. 14, ll. 36, 42-43.

converting the input video program into a production format
having a predetermined frame rate and image dimension in pixels.

'157 Patent, col. 16, ll. 60-62.

Thus, each of the independent claims of the original '157 patent includes a *positive limitation*, i.e., a concrete structure or step, requiring conversion of an input video program into a production format.

In contrast, none of the claims of the pending reissue application other than claim 255 includes any positive structural or method limitation requiring conversion into a production format.

For example, independent claims 26, 38, 151, and 243, and claims dependent from those claims, are all directed to a storage medium per se. The supposed limitation in these claims regarding the source of the digital video component (e.g., the recitation in claim 26 of a digital video component "obtained by converting an input format with no added redundant frames or fields into an intermediate format") is in fact not a limitation at all. Essentially, this recitation is a product-by-process limitation which does not serve to limit the structure in any way. See, e.g., MPEP § 2113 ("the patentability of a product does not depend on its method of production").

The only concrete definition of the video component, and thus the claimed storage medium, is, at most, that it have a frame rate of substantially 24 frames per second. In addition, as noted in MPEP § 1412.03, a claim in the reissue which includes subject matter not covered by the original patent claims enlarges the scope of the patent claims. By definition, claims to a storage medium having video information stored thereon are broadening with respect to claims of the original patent directed to an audio/video production system or method. Because they are directed to a completely different category than the original claims, and because the recitation regarding converting an input format into an intermediate format is not a structural limitation in any way,

all of the storage medium claims are clearly broadened in comparison to the claims of the original patent.

The situation is the same with respect to all of the other claims. Claims in Group II, including independent claims 60 and 74 and claims dependent therefrom, attempt to include a functional limitation regarding a structural element (*e.g.*, the recitation in claim 60 of “the digital video component having been formed by converting input video information having an input format with no added redundant frames or fields”). However, this functional recitation does not serve to limit the structure of the claim element at all. The structural element is “an input device” to read video information from a storage medium. The storage medium, which itself is not even part of the claimed structure, is attempted to be defined by use of a functional limitation. These recitations do nothing to define the structure of the “input device.” Indeed, the recitations do nothing to define the structure of the storage medium either, which is simply a workpiece to be worked on, *i.e.*, read by, the input device.

As noted in MPEP § 2114, apparatus claims must be structurally distinguishable from the prior art (“while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function”). Similarly, as set forth in MPEP § 2115, the recitation of an article worked upon does not limit apparatus claims. Thus, recitations regarding the origin of the digital video component contained in claims 60 and 74 are completely meaningless structurally and should be ignored in determining whether the claims have been broadened with respect to the original claims of the ‘157 patent. In fact, claims 60 and 74 contain no structural limitation at all which corresponds to the graphics processor connected to convert the display format of the program into an intermediate production format as recited in claim 1 of the original ‘157 patent or the

means to convert the input program into a 24 frames per second production format as recited in claim 14 of the original '157 patent. This broadening is abundantly clear with reference to MPEP § 1412.03 which states that if any amended claim or newly added claim in the reissue contains within its scope any conceivable product or process which would not have infringed the patent, then that reissue claim would be broader than the patent claims, and that a claim which reads on something which the original claims do not is a broadened claim. Having completely eliminated any concrete structural limitations regarding conversion into an intermediate format, claims 60 and 74 and their dependent claims are most certainly broadened with respect to the original patent claims.

The situation is the same with respect to claims of Group III directed to the method of viewing information from a storage medium, *i.e.*, independent claims 95 and 109 and claims dependent therefrom. These claims contain a recitation in the preamble regarding the workpiece, *i.e.*, a storage medium (clearly intended to cover a DVD), and more particularly a recitation regarding that the digital video component is "resulting from the conversion of input video information having an input format with no added redundant frames or field." This recitation in the preamble does not serve to limit the steps of the claim in any way whatsoever. Because they do not serve to structurally define the storage medium in any way as discussed above, they most certainly do not limit the steps recited in the body of the claim.

Method claim 20 of the original '157 patent contains the positive recitation of converting the input program into a production format having a predetermined frame rate and image dimension in pixels. Method claims 95 and 109 (Group V) of the reissue completely eliminate any positive recitation of any such conversion, and also fail to limit the claim in any fashion by including recitations regarding how a storage medium – the workpiece upon which the claimed

method is performed – was made, especially when the recitation does not in any way serve to structurally define that workpiece. Thus, claims 95 and 109 and claims dependent therefrom have very clearly been broadened with respect to original patent claim 20. The same analysis applies to claims of Group III, namely independent claims 75 and 94 and claims dependent therefrom. The “resulting from the conversion” recitation in these claims does not serve in any way to define the structure or nature of the actual video signal or limit the steps of the claims. Moreover, the claims do not contain any positive step of converting the input video program into a production format as required by original claim 20. The claims have very clearly been broadened with respect to the original patent claims.

Claims of Group IV, namely, independent claims 39 and 59 and claims dependent therefrom, do not even include a recitation that some conversion was performed to result in the digital video component. These claims are therefore completely lacking in any limitation corresponding to the required conversion of the graphics processor and means to convert of claims 1 and 14 of the original ‘157 patent.³

Claims of Group VI, namely, independent claim 252 and claims dependent therefrom, contain no limitations regarding conversion of an input program into a production format as recited in the claims of the original patent. Therefore, these claims are clearly broadened with respect to those of the original patent.

Fundamentally, Multi-Format is attempting to remove any positive limitations from the claims regarding an actual structure of converting signals into a production format or an actual step of converting signals into an internal production format in an effort to obtain claims which directly cover products which only perform a viewing or playback operation or only carry out

³ An amendment to claim 39 to correspond to claim 60, as Multi-Format indicated will be done, would merely make the claim similar to claim 60, and would still not include a positive structural limitation regarding conversion into a production format.

steps associated with viewing or playback (*i.e.*, DVDs, DVD drives, and DVD players). Positive limitations regarding conversion into a production format, which were contained in all of the independent claims of the original patent, have been eliminated.⁴ The claims represent a clear attempt to read on something which the original claims do not and are therefore broadened.

B. The Second Step - The Broadening Aspect of the Reissue Claims Relates to Subject Matter Surrendered During Prosecution

As set forth in MPEP § 1412.02 at I.B., when a claim in a reissue application is broadened, the examiner must next determine whether the broadening aspect of the reissue claim relates to subject matter that the applicant previously surrendered during the prosecution of the original application. This analysis in turn involves two sub-steps. The first sub-step is to determine whether there was any surrender of subject matter made in the prosecution of the original application. As set forth in the MPEP at § 1412.02 I.B.1, “[i]f an original patent claim limitation now being omitted or broadened in the present reissue application was originally relied upon by applicant in the original application to make claims allowable over the art, the omitted limitation relates to subject matter previously surrendered by applicant.” As noted, the reliance can be by way of presentation of amended claims or arguments by the applicant that a limitation defines over the art. *See Hester v. Stein*, supra, 142 F. 3d at 1482 (“surrender can occur through arguments alone.”).

In the prosecution of the original ‘157 patent, the examiner initially rejected independent claims 1, 13 and 17 (which issued as patent claims 1, 14 and 20, respectively) as being anticipated under 35 U.S.C. § 102(e) by U.S. Patent No. 5,243,433 to Hailey. *See Exhibit 5* (Apr. 10, 1995 Office Action) at 4-5. In responding to this rejection, the applicant amended claim 1 to add the limitation that the graphics processor element is connected to “convert the

⁴ At the same time, Multi-Format heavily (almost exclusively) relies upon these non-concrete recitations in arguing against the prior art. *See, e.g.*, Exhibit 13 (June 1, 2004 Response to Office Action), at 23-26.

display format of the program into an intermediate production format.” See Exhibit 6 (Multi-Format’s Aug. 11, 1995 Amendment) at 1. In the Remarks section of the amendment, the applicant argued:

Claim 1 has been amended to include high-capacity video storage means and an aspect always present in independent claims 13 and 17, that is, an internal production or “working” format which may be stored and/or used as the basis for input to the interface units so as to create a standard/wide screen or HDTV output formatted imagery. Hailey neither implies nor suggests the use of such an intermediate format, nor does Hailey include any means for the storage of images, temporarily or permanently during conversion directly from an input format to an output format.

Id. at 10 (emphasis added).

The recitation contained in claim 13 in the amendment relating to use of an internal production format is as follows:

means to convert the input program into a 24 frames-per-second (fps) production format, if not already in such a format for review on the color display.

Id. at 6.

Similarly, the recitation in claim 17 in the amendment relating to the internal production format is as follows:

converting the input video program into a production format having a predetermined frame rate and image dimensions in pixels.

Id. at 7.

Thus, during the original prosecution, the applicant surrendered subject matter by making amendments to claim 1 and arguments with respect to claims 1, 13 and 17 regarding the structure or step of requiring conversion into an intermediate production format. The amendments and arguments were unequivocally presented to distinguish over the Hailey reference. As such, subject matter was surrendered.

The second sub-step is to determine whether any broadening of the reissue claims is in the area of the surrendered subject matter. As stated in MPEP § 1412.02 I.B.1., it must be determined “if any of the omitted/broadened limitation(s) are directed to limitations relied upon by applicant in the original application to make the claims allowable over the art.” As discussed above, claims 26-251 all omit any positive limitation regarding conversion into an intermediate production format. Thus, the broadening in this respect is most certainly “in the area of the surrendered subject matter.” *See* MPEP § 1412.02 I.B.1.

As noted above, the surrender with respect to claim 1 occurred through both amendment and argument, and the surrender with respect to claims 13 and 17 (patent claims 14 and 20) occurred through argument alone. MPEP § 1412.02 I.B.2 emphasizes in its first example that recapture can occur through arguments alone, even where the claims were never amended.

In summary, there clearly was surrender of subject matter during the prosecution of the original application, and broadening of the reissue claims is in the area of the surrendered subject matter.

C. The Third Step - The Reissue Claims are not Materially Narrowed in Other Respects to Compensate for the Broadening in the Area of the Surrender

The third step of the recapture analysis requires a determination of whether other claim limitations were added to compensate for the broadening “in the area of surrender” so as to avoid the recapture rule. In the present situation, this analysis is simple. Reissue claims 26-251 contain no positive limitations regarding conversion into a production format. Since there are no such limitations at all, there can be no narrowing of the claims in other respects in the area of the surrender so as to avoid the recapture rule from applying. This situation corresponds to that set forth at MPEP § 1412.02 I.C.2. There, it is stated:

The "limitation" presented, argued, or stated to make the claims patentable over the art (in the application) "generates" the surrender of claimed subject matter. For the sake of simplification, this limitation will be referred to throughout this section as the *surrender-generating limitation*. If a claim is presented in a reissue application that omits, in its entirety, the surrender-generating limitation, that claim impermissibly recaptures what was previously surrendered, and that claim is barred under 35 U.S.C. 251.

Here, the "surrender-generating limitation", *i.e.*, the limitation of converting into a production format contained in each of claims 1, 14 and 20 of the original '157 patent, has been omitted in its entirety from each of claims 26-251. These claims contain no positive recitation regarding conversion into a production format which serves to limit the claimed structure or restrict the steps of the claimed method. Moreover, even if there are other limitations in the claims which render them narrower in scope than the original claims in some fashion, such limitations are necessarily in an area not directed to the amendment/arguments made to overcome the prior art in the original prosecution. As discussed in § 1412.02 I.C.2(a), the presence of such limitations do not serve to prevent the recapture rule from applying:

- (a) Reissue Claims are Narrower in Scope Than Patent Claims, in Area Not Directed to Amendment/Argument Made to Overcome Art Rejection in Original Prosecution; are Broader in Scope by Omitting Limitation(s) Added/Argued To Overcome Art Rejection in Original Prosecution:

In this case, there is recapture.

This situation is where the patent claims are directed to combination ABC and the reissue claims are directed to ABD. Element C was either a limitation added to AB to obtain allowance of the original patent, or was argued by applicant to define over the art (or both). Thus, addition of C (and/or argument as to C) has resulted in the surrender of any combination of A & B that does not include C; this is the surrendered subject matter. Element D, on the other hand, is not related to the surrendered subject matter. Thus, the reissue claim, which no longer contains C, is broadened in an area related to the surrender, and the narrowing via the addition of D does not save the claim from recapture since D is not related to the surrendered subject matter.

Reissue claims that are broader than the original patent claims by not including the surrender-generating limitation (element C, in the example given) will be barred by the recapture rule even though there is narrowing of the claims not related to the surrender-generating limitation. As stated in the decision of *In re Clement*, 131 F.3d at 1470, 45 USPQ2d at 1165, if the reissue claim is broader in an aspect germane to a prior art rejection, but narrower in another aspect completely unrelated to the rejection, the recapture rule bars the claim. *Pannu v. Storz Instruments Inc.*, *supra*, then brings home the point by providing an actual fact situation in which this scenario was held to be recapture.

In summary, by seeking to avoid the inclusion of any positive limitation regarding a structure or step which must be performed by an accused infringer regarding conversion into a production format, Multi-Format has impermissibly broadened the claims in manner which directly relates to material that was surrendered during the original prosecution. The recapture rule precludes such broadening. Therefore, the examiner should reject each of claims 26-251 under 35 U.S.C. § 251 as set forth in form paragraph 14.17, reproduced in MPEP § 1412.02 IV.

The impermissible attempt to recapture surrendered material by Multi-Format in this case is separate from the restriction estoppel discussed above. The claims should be rejected on both grounds. However, these bases are interrelated to the extent that the complete omission of any positive limitations regarding conversion to a production format demonstrates how the claims of the reissue application are directed to completely distinct inventions from the claims of the original '157 patent. The fact that the omission relates to an aspect of the invention which was amended and argued during prosecution simply means that the claims are separately precluded through the application of the recapture rule.

IV. THE CLAIMS ARE UNPATENTABLE UNDER 35 U.S.C. § 112, FIRST PARAGRAPH

In his Office Action, the Examiner gave numerous rejections under 35 U.S.C. § 112, first paragraph, for failure to comply with the written description requirement. Multi-Format responded by identifying sections in the specification which it contends provide the necessary written description. However, even a brief review of these supposed areas of "support" makes it apparent that the necessary description for the subject matter of numerous claims simply does not exist. A number of specific points are addressed below, just as examples.

As noted above, numerous claims include limitations directed to receiving and viewing video information, *e.g.*, independent claims 39, 59, 75 and 94. These claims, which as discussed above are an attempt to cover downloading and playing of video material, recite a "receiver" which receives a signal that has a digital video component having a frame rate of substantially 24 frames per second, a drive to store the received signal and a graphics processor adapted to convert the signal. The claims are allegedly supported by the system of Figure 7 and its corresponding description, with Multi-Format asserting that receivers are shown at 210, 212 and 214. However, the discussion of the system shown in Figure 7 includes no mention whatsoever

that signals received by the broadcast receiver 210, satellite receiver 212 or data network 214 are the input signals now attempted to be defined by Multi-Format, *i.e.*, 24 frame-per-second signals. Indeed, conventional broadcast signals and satellite signals would have been at either approximately 30 frames (60 fields) per second for NTSC or 25 frames (50 fields) per second for PAL. It is nowhere stated that data on the data network 214 is provided at 24 frames per second. Thus, these claims are not supported by the written description.

With respect to paragraph 13.s, in which the Examiner questioned where there is a description of an HDTV output format at 24 fps, Multi-Format directs the Examiner's attention to column 12, lines 26-42 and column 5, lines 47-55. These portions of the specification do not contain the necessary description at all to support the claims. Indeed, the quotation which Multi-Format includes on page 15 of its response specifically says that the output signals at 24 fps are available for use in a film recording unit 168, not HDTV. In fact, when referring to Figure 6, to which the discussion at column 12 is directed, HDTV outputs at 30 fps and 25 fps are shown. To assert that the film recorder output is somehow transformed into an HDTV output at 24 fps when two other HDTV outputs at different frame rates are specifically identified is absurd. Moreover, the discussion at column 5 is referring to image dimensions of the proposed HDTV format, not frame rates. The reference to 24 fps refers to the desired use of an internal production frame rate, and has nothing to do whatsoever with an output format.

With respect to paragraphs 13.t, u and v of the office action, Multi-Format simply arbitrarily chooses a high or low cutoff, when there is no discussion regarding any ranges. There is no discussion whatever of any range being a preferred range for any particular reason.

With respect to paragraph 13.w, relating to claims reciting "an integer multiple of 24, 25, or 30 frames per second" Multi-Format directs the Examiner's attention to column 10, line 36,

column 11, lines 58-62 and column 12, lines 36-40. Not one of these portions of the specification contains any discussion at all regarding use of frame rates that are integer multiples of 24, 25 or 30 frames per second.

The above examples are simply among the most apparent of Multi-Format's attempts to find a description in the specification where none exists. It is respectfully submitted that essentially all of the rejections made under 35 U.S.C. § 112, first paragraph by the Examiner are appropriate and should be maintained.

With respect to paragraph 13.r of the Office Action, Multi-Format did not respond to this rejection. However, the rejection indicates that the Examiner has fully recognized that Multi-Format is attempting to cover something which simply is not described in the specification. Multi-Format is attempting to cover mass-produced media such as DVDs, based upon a specification that contains no description whatsoever of any storage medium as an article of manufacture. Rather, as fully recognized by the Examiner, it is just the opposite – the storage medium is nothing more than temporary storage used to facilitate the desired editing/production function. The complete lack of description of a recording medium as an article of manufacture is consistent with the lack of any claims in the original application to such a category. It also demonstrates why there was no error in failing to include such claims originally (it is certainly not error to not claim something which is not described) and that restriction acquiescence serves to prevent any such claims from being inserted at this late date.

PART 2

Prior Art

V. THE CLAIMS ARE UNPATENTABLE OVER THE PETERS REFERENCE BY ITSELF

A. Background of the Office Action

In the Office Action, the Examiner rejected claim 39 and numerous claims dependent from claim 39 as being unpatentable over U.S. Patent No. 5,930,445 to Peters et al. (copy attached as Exhibit 17) ("Peters"), which was the primary reference relied upon during prosecution of the parent '079 reissue patent. Independent claim 60 and numerous claims depending from it were rejected under 35 U.S.C. § 103(a) as being unpatentable over Peters in view of U.S. Patent No. 5,329,309 to Dorricott et al. ("Dorricott") and U.S. Patent No. 5,272,529 to Frederiksen. Independent claim 75 and claims dependent therefrom were rejected under 35 U.S.C. § 103(a) as being unpatentable over Peters alone, as was independent claim 95 and claims dependent therefrom. Claim 255 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Peters in view of Dorricott and Frederiksen for the same reasons that were set forth for claim 60. Claims directed to a storage medium alone, *i.e.*, independent claims 26, 151 and 243 and claims dependent therefrom were rejected under 35 U.S.C. § 102 and 35 U.S.C. § 103 as being unpatentable over various references. With respect to the Peters reference, these claims were rejected under 35 U.S.C. § 103(a) as being unpatentable over Frederiksen in view of Peters.

B. The Claims Are Not Limited By Recitations That the Source of a Signal Have No Redundant Fields or Frames

The claims of the application must be given their broadest reasonable interpretation. See MPEP § 2111. Moreover, the claims must be analyzed in terms of actual positively recited limitations with respect to structure of system or apparatus claims or steps of method claims. In the Office Action, the Examiner has taken into account recitations relating to the manner in which a video signal has been placed upon a storage medium, *e.g.*, the limitation as set forth in claim 60 of the digital video component, "having been formed by converting input video

information having an input format with no added redundant frames or fields.” It is respectfully submitted that such recitations should not be taken into account when examining the claims, because they do not in any way serve to limit the claimed structure, the claimed method steps or the claimed storage medium. As discussed in detail in MPEP §§ 2111 – 2115, it is the actual structure or actual steps that must distinguish over the prior art. For example:

While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. (MPEP § 2114.)

A claim containing a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. (MPEP § 2114, quotations and citations omitted, emphasis original.)

Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claimed.... Furthermore, inclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims. (MPEP § 2115, quotations and citations omitted.)

The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. (MPEP § 2113.)

Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. (MPEP § 2113.)

Under the principles of inherency, if a prior art device, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered to be anticipated by the prior art device. (MPEP § 2112.02.)

If the body of a claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction. (MPEP § 2111.02.)

During an examination, statements in the preamble citing the purpose or intended use of the claimed invention must be evaluated to determine whether the recited purpose or intended use results in a structural difference (or, in the case of process claims, manipulative difference) between the claimed invention and the prior art.... If a prior art structure is capable of performing the intended use as recited in the preamble, then it meets the claim. (MPEP § 2111.02.)

In examining all of the claims of the reissue application, recitations relating to the manner of forming the 24 fps video signal by converting an input signal without any redundant fields or frames should simply be ignored, because they do not in any way provide any concrete structural or process limitations. The claimed structure or process merely requires processing signals which are at 24 fps, and nothing more. There is nothing recited which serves to distinguish signals which result from processing original signals without redundant fields or frames from signals which result from processing original signals with redundant fields or frames. Thus, an apparatus which works on a storage medium containing the signals, or a process involving processing signals from a storage medium containing the signals, or a storage medium per se containing the signals, is indistinguishable from any prior art structure which processes 24 fps signals for display, regardless of their origin.⁵

Peters discloses just such a prior art structure. When the claims are examined in accordance with their true scope, it is immediately apparent that Peters, by itself, renders substantially all of the pending claims either anticipated or obvious. Therefore, the Examiner

⁵ It is noted that in litigation, in contrast to prosecution, these recitations would clearly serve to limit the scope of the claims. During prosecution, the applicant has an opportunity to amend the claims.

need not rely on any secondary references, and the discussion in paragraph 25 of the Office Action regarding claim 39 applies equally well to claim 60 and other claims containing some recitation as to how the video signal was produced. Reliance upon the Dorricott and Frederiksen references, as the Examiner has done in paragraph 27 of the Office Action, is simply unnecessary, since these references are relied upon only to supply teaching regarding use of original signals having no redundant fields or frames. Peters by itself discloses the storage and processing of 24 fps video, which is all that is claimed in claim 60. It is therefore respectfully submitted that the Examiner should reformulate the rejections in this regard to reject substantially all of the claims as being unpatentable over Peters by itself. Every independent claim is anticipated. Dependent claims add recitations which are either clearly anticipated by Peters, either specifically or inherently, or most certainly obvious to one of ordinary skill in the art.

VI. THE CLAIMS ARE UNPATENTABLE OVER PRIOR ART EITHER NOT CONSIDERED OR PREVIOUSLY RELIED UPON BY THE EXAMINER

In the Office Action, the Examiner addressed the invention as being directed to "video and film post-production systems." Such systems were discussed in the "preface to Office Action" beginning at paragraph 1 at page 2 and again in the discussion of the § 103 rejections at paragraph 21 at page 23. The heading for paragraph 21 indicates that the discussion represents the state of the art which existed at the time of applicant's invention and "thus represents the context in which the teachings of the applied prior art should/must be read." All of the background discussion presented by the Examiner indeed relates to electronic film and video post-production systems. It is apparent from the discussions in the Office Actions as well as from the classification of the claims that the Examiner considered the invention and the claims to be limited to such post-production systems used during video production, *i.e.*, studio equipment.

That the Examiner would analyze the application and claims in this fashion is no surprise whatsoever. The disclosure very clearly relates only to such systems. However, as is apparent from the above discussion regarding the prior litigation as well as the expressed intent regarding the current reissue application, Multi-Format in no way considers its claims to be so restricted. Moreover, Multi-Format apparently did not feel that it was necessary to inform the Examiner of the true scope of the claims that it was seeking, preferring instead to have a narrow scope of examination.

Once the true scope of the claims sought by Multi-Format in this reissue is appreciated, it will also immediately be appreciated that the scope of prior art which is potentially relevant to the claims is far broader than just film and video post-production systems. Indeed, such systems form a tiny part, if any, of the target products which Multi-Format is seeking to cover. Recognition of this extremely broad scope that is sought also serves to demonstrate the importance of giving the claims their broadest reasonable construction during prosecution, without being limited to specific descriptions contained in the specification. In view of the claim scope being sought, relevant prior art includes art in the area of storage media per se and video playback devices as well as numerous other areas, and is certainly not limited at all to studio devices.

The Protestors submit that some or all of the claims in the reissue application are unpatentable over each of the following references individually:

- ISO/IEC 11172 (pts. 1 & 2) (1st ed. Aug. 1, 1993) ("MPEG-1 standard");
- Jan van der Meer (of Philips Consumer Electronics, Eindhoven, The Netherlands), *The Full Motion System for CD-I*, IEEE Transactions on Consumer Electronics, vol. 38, no. 4 (Nov. 1992) ("Van der Meer");

- Japanese Patent Laid-open No. HEI 2-89478 (laid open March 29, 1990) (“Canon”)
- U.S. Patent No. 5,463,565 (issued Oct. 31, 1995 to Cookson et al., assigned to Time Warner Entertainment Co., L.P.) (“Cookson”);
- U.S. Patent No. 5,461,420 (issued Oct. 24, 1995 to Yonemitsu et al., assigned to Sony Corporation) (“Yonemitsu”).

In accordance with 37 C.F.R. § 1.291, a copy of each reference is enclosed (*see* Exhibits 18, 19, 20, 21, and 22, respectively). The references are also listed on the attached PTO Form 1449.

Each of these references relates to, among other things, storage mediums for video programs and playback devices for playing video programs from the storage media. The first reference, the MPEG-1 standard, is the ISO/IEC standard that was promulgated in the early 1990s to provide a common format for representing compressed video on various storage media. Van der Meer describes an implementation of the MPEG-1 standard in a marketed product. Cookson describes an optical disc format and associated playback device, employing MPEG-1 or MPEG-2 standards. Yonemitsu discloses coding and decoding devices for producing and reproducing video programs stored on optical discs using MPEG-2 coding. The Canon reference discloses a high definition video tape recorder.

A. The Claims are Unpatentable Over the MPEG-1 Standard

1. The MPEG-1 Standard Anticipates All of the Independent Claims in the Reissue Application Other Than Claims 252 and 255

The MPEG-1 standard (Exhibit 18) is entitled “Information Technology - Coding of Moving Pictures and Associated Audio for Digital Storage Media at Up to About 1,5 Mbit/s” and includes Parts 1 and 2. Part 1 relates to combining audio and video signals in a single data

stream; Part 2 relates to video coding. References in this protest refer primarily to Part 2. This reference is prior art under 35 U.S.C. § 102(b).

It is noted that the MPEG-1 standard was listed in an IDS filed on August 19, 1999 (copy attached as Exhibit 23) in the parent reissue application. However, this reference apparently was not considered by the Examiner, as the IDS does not include an Examiner's initials indicating consideration, and the printed reissue patent does not include a listing of this reference.

Moreover, a copy of this reference could not be located in a check of the Patent Office files of the parent reissue patent. It seems likely that a copy of this reference was never submitted to the Examiner.

In this reissue application, the applicant filed an IDS on August 8, 2002 listing no fewer than 64 separate references. The MPEG-1 standard is listed on page 3. However, the IDS asserts that copies of the listed references are not required, citing to 37 C.F.R. § 1.98(d). Because the MPEG-1 standard was never submitted during the prosecution of the parent reissue patent, 37 C.F.R. § 1.98(d) does not apply. This reference has never been properly made of record either in the parent reissue application or this application, and apparently has never been considered by the Examiner.

As the MPEG-1 standard is just that, *i.e.*, a standard, it is quite long and detailed. However, its relevance to the claims of the present reissue application is apparent with reference to just several portions. First, § 1.1 sets forth the scope of Part 2 of the standard. This introduction, reproduced below, specifically identifies that video is coded for digital storage media such as compact disc, digital audio tape and magnetic hard disk. Communications means and picture rates are also identified.

Section 1: General

1.1 Scope

This part of ISO/IEC 11172 specifies the coded representation of video for digital storage media and specifies the decoding process. The representation supports normal speed forward playback, as well as special functions such as random access, fast forward playback, fast reverse playback, normal speed reverse playback, pause and still pictures. This part of ISO/IEC 11172 is compatible with standard 525- and 625-line television formats, and it provides flexibility for use with personal computer and workstation displays.

ISO/IEC 11172 is primarily applicable to digital storage media supporting a continuous transfer rate up to about 1.5 Mbit/s, such as Compact Disc, Digital Audio Tape, and magnetic hard disks. Nevertheless it can be used more widely than this because of the generic approach taken. The storage media may be directly connected to the decoder, or via communications means such as busses, LANs, or telecommunications links. This part of ISO/IEC 11172 is intended for non-interlaced video formats having approximately 288 lines of 352 pels and picture rates around 24 Hz to 30 Hz.

Annex D of Part 2 is entitled "Guide to Encoding Video" and provides background material to help readers understand and implement the standard. Methods of encoding and decoding are described. An overview is provided at Section D.2, which illustrates the encoding, storage and/or transmission and decoding process. This section is reproduced below.

D.2 Overview

D.2.1 Video concepts

This part of ISO/IEC 11172 defines a format for compressed digital video. This annex describes some ways in which practical encoders and decoders might be implemented.

Although this part of ISO/IEC 11172 is quite flexible, the basic algorithms have been tuned to work well at data rates of about 1 to 1.5 M bits/s, at spatial resolutions of about 350 pels horizontally by about 250 pels vertically, and picture rates of about 24 to 30 pictures/s. The use of the word "picture" as opposed to "frame" is deliberate. This part of ISO/IEC 11172 codes progressively-scanned images and does not recognize the concept of interlace. Interlaced source video must be converted to a non-interlaced format before coding. After decoding, the decoder may optionally produce an interlaced format for display.

This part of ISO/IEC 11172 is designed to permit several methods of viewing coded video which are normally associated with VCRs such as forward playback, freeze picture, fast forward, fast reverse, and slow forward. In addition, random access may be possible. The ability of the decoder to implement these modes depends to some extent on the nature of the digital storage medium on which the coded video is stored.

The overall process of encoding and decoding is illustrated below:

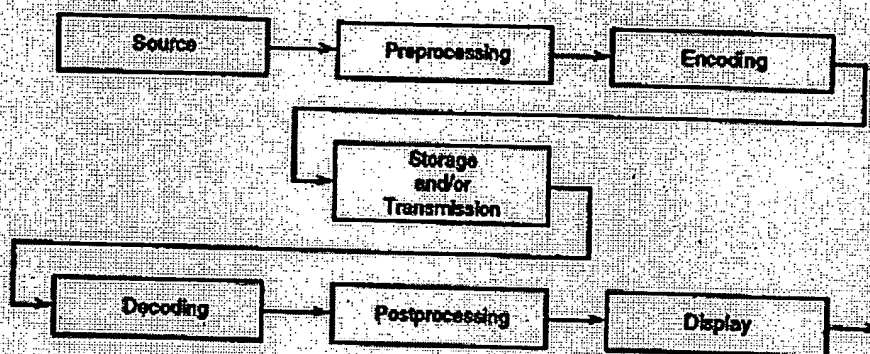


Figure D.1 -- Coding and decoding process

Figure D.1 shows a typical sequence of operations that must be performed before moving pictures can be seen by a viewer. The unencoded source may exist in many forms, such as the CCIR 601 format. Clause D.3 describes how such a source may be converted into the appropriate resolution for subsequent encoding. In the encoding step, the encoder must be aware of the decoder buffer capacity, and the need of the decoder to match the rate of the media to the rate of filling the picture buffer with each successive picture. To this end, a model of the decoder buffer and its overflow and underflow problem is introduced in D.4, and rate control is described in D.6.1. The structure of an ISO/IEC 11172-2 bitstream is covered in D.5, as are the coding operations that compress the video. Following the encoding process, the bitstream may be copied to a storage medium. To view the moving pictures, the decoder accesses the ISO/IEC 11172-2 bitstream, and decodes it as described in D.7. Postprocessing for display is described in D.8.

This section particularly describes the use of picture rates of "about 24 to 30 pictures/s."

Thus, pictures may be encoded at 24 pictures per second and stored and/or transmitted. The storage medium is accessed by a decoder for viewing.

Section D.3 discusses preprocessing, and indicates at page 57 that the source material may exist in many forms. Different picture rates and resolutions are discussed. Section D.3.2 specifically addresses the situation of conversion from film for encoding:

D.3.2 Conversion from film

If film material can be digitized at 24 pictures/s, then it forms an excellent source for an ISO/IEC 11172-2 bitstream. It may be digitized at the desired spatial resolution. The picture_rate field in the video sequence header, see 2.4.2.3, allows the picture rate of 24 pictures/s to be specified exactly.

Sometimes the source material available for compression consists of film material which has been converted to video at some other rate. The encoder may detect this and recode at the original film rate. For example, 24 pictures/s film material may have been digitized and converted to a 30 frame/s system by the technique of 3:2 pulldown. In this mode digitized pictures are shown alternately for 3 and for 2 television field times. This alternation may not be exact since the actual frame rate might be 29.97 frames/s and not the 30 frames/s that the 3:2 pulldown technique gives. In addition the pulldown timing might have been changed by editing and splicing after the conversion. A sophisticated encoder might detect the duplicated fields, average them to reduce digitization noise, and code the result at the original 24 pictures/s rate. This should give a significant improvement in quality over coding at 30 pictures per second, since direct coding at 30 pictures/s destroys the 3:2 pulldown timing and gives a jerky appearance to the final decoded video.

This section thus describes two possible manners of encoding film-based material. The first is straightforward – directly digitizing film material at 24 pictures per second. The MPEG-1 standard allows the picture rate of the stored picture data to be specified, and in the case of film the picture rate of 24 pictures per second can be specified “exactly.”

The MPEG-1 standard recognizes that the source material for film is not always 24 frames per second film. The second paragraph of D.3.2 states that film material that has been converted to video at some other rate may be recoded at the original film rate. The specific example is given of film material which is converted from 24 pictures per second film to 30 frames per second video by the use of 3:2 pulldown. This section indicates that the encoder can detect duplicated fields and average them to reduce digitization noise and code the result at the original 24 pictures per second rate.

Section D.7 describes the operation of decoding MPEG-1 video. Following decoding, post-processing may be done as described in Section D.8. As set forth at D.8.2, the decoded bit-stream may not match either the picture rate or the spatial resolution of the display device and that in this quite frequent situation, the decoded video must be resampled or scaled. Section D.8.2.1 describes rescaling to different pixel sizes. Section D.8.2.2 describes temporal resampling to convert the picture to a desired picture rate:

D.8.2.2 Temporal resampling

Since the picture rates are limited to those commonly used in the television industry, the same techniques may be applied. For example, conversion from 24 pictures/s to 60 fields/s may be achieved by the technique of 3:2 pulldown.

Video coded at 25 pictures/s can be converted to 50 fields/s by displaying the original decoded lines in the odd CCIR 601 fields, and the interpolated lines in the even fields. Video coded at 29,97 or 30 pictures/s may be converted to a field rate twice as large using the same method.

Video coded at 23,976 or 24 pictures/s may be converted to 50 fields/s by speeding it up by about 4% and decoding it as if it had been encoded at 25 pictures/s. The decoded pictures could be displayed in the odd fields, and interpolated pictures in the even fields. The audio must be maintained in synchronization, either by increasing the pitch, or by speeding it up without a pitch change.

Video coded at 23,976 or 24 pictures/s may be converted to 59,94 or 60 fields/s using the technique of 3:2 pull down.

The MPEG-1 standard specifically states that video coded at 24 pictures per second may be converted to 60 fields per second for viewing by using the standard technique of 3:2 pulldown.

Thus, the MPEG-1 standard describes a system in which video is (a) coded directly from film at 24 pictures per second, (b) stored on a storage medium at 24 pictures per second, and (c) decoded and converted to 50 or 60 fields per second for display. The standard similarly describes converting from video which contains redundant fields into 24 picture per second coded material for storage and conversion back into 50 or 60 fields per second for display.

The MPEG-1 standard anticipates each of the independent claims in the reissue application with the exception of claim 255, which is obvious in view of the standard. Claim 60, voluntarily elected by Multi-Format, is set forth below:

60. A system of viewing video information stored on a removable high capacity storage medium, the system comprising:

an input device configured to read the video information from the high capacity storage medium, the video information stored on the high capacity storage medium having a digital audio component and a digital video component, the digital video component having an intermediate format having a frame rate of substantially 24 frames per second (fps),

the digital video component having been formed by converting input video information having an input format with no added redundant frames or fields;

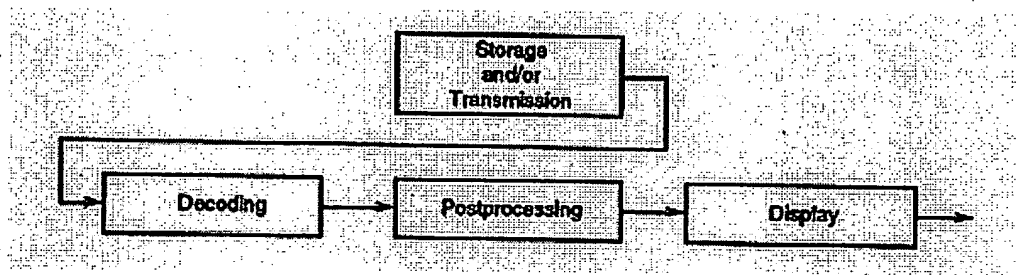
a graphics processor in data communication with the input device and configured to convert the digital video component in its intermediate format to output video information in an output format, the output format having a frame rate that is greater than or equal to the frame rate of the intermediate format, the graphics processor further being capable of being in data communication with a display device for viewing the output video information in the output format.

Comparison of this claim with the MPEG-1 standard, and specifically the sections discussed above, illustrate that the claim is very clearly anticipated by the MPEG-1 standard. With respect to the removable high capacity storage medium set forth in the preamble, the specification identifies compact disc, digital audio tape and magnetic hard disks as potential digital storage media. With respect to an input device configured to read the video information from the high capacity storage medium, a decoder which is made in accordance with the standard will necessarily have an input device to read the video information, *e.g.*, an optical drive for reading information from a CD.

The standard specifies that video and audio will be stored. The frame rate of 24 frames per second can be specified "exactly."

The recitation regarding how the digital video component is formed is ignored for this analysis, as it does not serve to limit the structure of even the storage medium, much less the "system of viewing."

The MPEG-1 standard describes a system containing decoding and post-processing circuitry connected to a display. Such decoding and post-processing circuitry corresponds directly to the graphics processor defined in claim 60. A digital video component is converted to an output format having a frame rate “that is greater than or equal to the frame rate of the intermediate format.” More particularly, the temporal resampling section describes conversion from 24 pictures per second to 50 or 60 fields per second. The graphics processor is in communication with a display device for viewing the output video information and the output format, as shown in the block diagram of a portion of Figure D.1 reproduced below.



Only a portion of this figure is reproduced, because the only structure defined by the claim relates to an apparatus for reading and processing video data from a storage medium.

As discussed above, the recitation regarding how the digital video component was formed is completely irrelevant since it does not serve to in any way define the structure of the high capacity storage medium or the system of viewing the video information stored on a storage medium. However, even if this recitation is considered, the claim is still anticipated by the MPEG-1 standard. As noted above, the MPEG-1 standard explicitly states that film material digitized directly at 24 frames per second is an “excellent source” for an MPEG-1 bitstream. This film may be digitized “at the desired spatial resolution.” The MPEG-1 standard therefore discloses forming a digital video component “by converting input video information having an input format with no added redundant frames or fields.” The MPEG-1 standard in fact describes

both encoding of film material directly from 24 picture per second film and encoding film material which was sourced at greater than 24 frames per second and processed to remove redundant fields or frames for storage.

In summary, the MPEG-1 standard very clearly discloses each and every limitation of claim 60, even with respect to limitations which do not serve in any way to define or limit the claimed structure. This correspondence is illustrated in the claim chart below (copy also attached as Exhibit 24). The claim is unpatentable over the MPEG-1 standard.

60. A system of viewing video information stored on a removable high capacity storage medium, the system comprising:

an input device configured to read the video information from the high capacity storage medium, the video information stored on the high capacity storage medium having a digital audio component and a digital video component, the digital video component having an intermediate format having a frame rate of substantially 24 frames per second (fps),

the digital video component having been formed by converting input video information having an input format with no added redundant frames or fields;

a graphics processor in data communication with the input device and configured to convert the digital video information in its intermediate format to output video information in an output format, the output format having a frame rate that is greater than or equal to the frame rate of the intermediate format, the graphics processor further being capable of being in data communication with a display device for viewing the output video information in the output format.

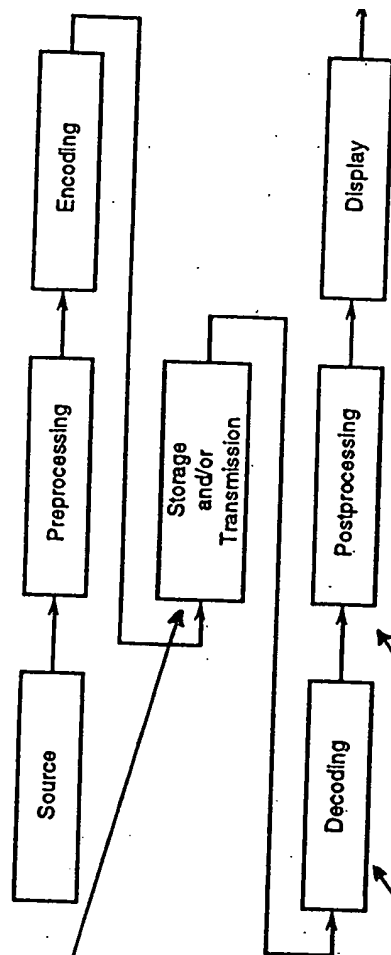


Figure D.1 -- Coding and decoding process

D.3.2 Conversion from film

If film material can be digitized at 24 pictures/s, then it forms an excellent source for an ISO/IEC 11172-2 bitstream. It may be digitized at the desired spatial resolution. The picture_rate field in the video sequence header, see 2.4.2.3, allows the picture rate of 24 pictures/s to be specified exactly.

D.8.2.2 Temporal resampling

Since the picture rates are limited to those commonly used in the television industry, the same technique may be applied. For example, conversion from 24 pictures/s to 60 fields/s may be achieved by the technique of 3:2 pulldown.

Video coded at 23,976 or 24 pictures/s may be converted to 50 fields/s by speeding it up by about 4% and decoding it as if it had been encoded at 25 pictures/s. The decoded pictures could be displayed in the odd fields, and interpolated pictures in the even fields. The audio must be maintained in synchronization, either by increasing the pitch, or by speeding it up without a pitch change.

2. Other Independent Claims are Also Unpatentable

A review of every other independent claim, with the exception of claims 252 and 255, leads to the inescapable conclusion that they are also anticipated by the MPEG-1 standard. For example, claim 74 is set forth below.

74. A system for viewing video information stored on a high capacity storage medium, the system comprising:

an input device configured to read the video information from the high capacity storage medium, the video information stored on the high capacity storage medium having a digital audio component and a digital video component, the digital video component having an intermediate format being a compressed digital format having an image dimension in pixels and having a frame rate of substantially 24 frames per second (fps),

the digital video component resulting from the conversion of input video information having an input format with no added redundant frames or fields;

a graphics processor in data communication with the input device and configured to convert the digital video component in its intermediate format to output video information in an output format, the output format having a frame rate that is greater than or equal to the frame rate of the intermediate format and having an image dimension in pixels, the image dimension of the output format being different than the image dimension of the intermediate format, the graphics processor further being configured for data communication with a display device for viewing the output video information in the output format.

This claim differs from claim 60 only in that it states that the intermediate format is a "compressed digital format having an image dimension in pixels." The MPEG-1 standard is directed in large part to "MPEG video compression techniques" as described in Section D.2.2. The claim also recites that the output format has an image dimension different than the image dimension of the intermediate format. As discussed above, Section D.8.2.1 discusses conversion of the stored MPEG picture data into different pixel dimensions as noted. More specifically, Section D.8.2 specifically indicates that the encoded bit stream does not match the picture rate or

the spatial resolution of the display device and that in this quite frequent situation, the decoded video must be resampled or scaled.

Corresponding independent method claims 75 and 94 are likewise anticipated. These claims correspond substantially to system claims 60 and 74, respectively. They are anticipated for the same reasons as given above.

Although they are apparently non-elected, it will be appreciated that independent claims 39 and 59 are anticipated by the MPEG-1 standard for substantially the same reasons given above with respect to claim 60. These claims refer to receiving and viewing video information. The MPEG-1 standard is specifically directed to playback from digital storage media and also from transmission. This is noted at page 1, § 1.1, which states that the decoder may be connected via communication means such as buses, LANs, or telecommunications links.

Although they are also non-elected, the storage media claims are also clearly anticipated by the MPEG-1 standard. For example, claim 26 is set forth below.

26. A high capacity storage medium having video information stored thereon, the video information comprising:

a digital audio component;

a digital video component obtained by converting an input format with no added redundant frames or fields into an intermediate format having a frame rate of substantially 24 frames per second (fps);

wherein the digital audio component and the digital video component in the intermediate format are stored on the high capacity storage medium, and wherein the digital video component is viewed by converting the digital video component to output video information having an output format with a frame rate greater than or equal to the frame rate of the intermediate format of the digital video component.

This claim defines nothing more than a storage medium having a digital video component with no added redundant frames or fields and a frame rate of substantially 24 frames per second.

It then attempts to somehow define the storage medium per se by describing how the digital video component is viewed. This does not restrict the claim in any meaningful fashion whatsoever. However, even if it did, all of the recitations are clearly met by the MPEG-1 standard, in which the storage medium stores video information at 24 frames per second and reads it out at a frame rate of greater than or equal to 24 frames per second. Claim 26 is anticipated. Claims 151 and 243 are likewise anticipated, as the image dimension in the MPEG-1 format is less than or equal to 1920 x 1080 pixels.

B. The Claims are Unpatentable Over Van der Meer

An actual implementation of the MPEG-1 standard is described in Van der Meer (Exhibit 19). Van der Meer describes extending the already existing CD-I ("Compact Disc Interactive") format to provide for full motion video using the MPEG-1 standards. The article is prior art under 35 U.S.C. § 102(b).

As described at page 911, it is indicated that several temporal formats can be used and that "[p]icture rates of (approximately) 24 Hz and 30 Hz support film and video based source material in 60 Hz." Thus, film material is coded at 24 Hz, *i.e.*, 24 frames per second. Different spatial formats can be encoded as illustrated in Figure 2.

As indicated at the bottom of page 911, a full motion CD-I disc can be played at either a 60 Hz or 50 Hz display rate of the particular player (*i.e.*, NTSC or PAL). It is noted that for playback of pictures that are coded at 24 Hz, 30 Hz or 25 Hz, a video output must be produced at the display rate of 60 Hz or 50 Hz. The article states:

The Full Motion decoder therefore needs to apply a frame rate conversion from the coded picture rate to the required display rate of 60 Hz or 50 Hz.

Exh. 19 at 911.

As noted on page 913, the Full Motion system allows for playback directly from disc, as well as from memory, and that in the case of a play from memory, the data to be played is loaded into memory by the application. In the second column of page 913, it is indicated that at the decoder pictures are reconstructed in the same order as they are included in the bit stream, and displayed at a frame rate of 50 Hz or 60 Hz depending upon the player type used for playback (*i.e.*, NTSC or PAL). It is then stated that "the decoder applies a frame rate conversion to the required display rate." Thus, conversion from the coded rate of 24 frames per second in the case of film is performed to play back at either 50 Hz or 60 Hz.

In addition to frame rate conversion, it is possible to convert the display of the picture. As described on page 914, the system controls the part of the reconstructed picture to be displayed by means of a display window, which may be smaller than the spatial size of the overall coded picture. As stated at page 915, the system can control the size and position of the display window.

Page 916 describes the application of the MPEG-1 standard for full motion video in CD-I. It is stated that the storage media targeted by MPEG include compact disc DAT and computer discs and also that the standard will be used for communication channels such as ISDN, local area networks and broadcasting.

The architecture of the full motion CD-I player is described beginning at page 919. Data is transferred from either disc or memory to the decoder. It is indicated that the memory bank may be used as a display memory for frame rate conversion.

Thus, Van der Meer clearly discloses storage of 24 frame-per-second video material on a storage medium and conversion of the stored material into a different frame rate for display on standard NTSC or PAL displays. It also discloses control of the size and dimensions of the

displayed video data. The article specifically indicates that film based source material will be coded at 24 Hz. As noted in the MPEG-1 standard referred to in the article and as discussed above, such 24 frame per second material can be obtained by directly digitizing film or by converting 30 fps video having redundant fields into 24 fps data for storage.

The claims of the reissue application are rendered unpatentable by Van der Meer for the same reasons given above with respect to the MPEG-1 standard. Van der Meer describes an actual implementation of a device employing MPEG-1 coding and specifically discloses storage of video data at 24 frames per second and conversion into different required display rates. As shown in the claim chart below for claim 60 (copy also attached as Exhibit 25), Van der Meer fully anticipates the structure claimed in claim 60.

The Full Motion system introduces in CD-I the capability to play from one CD-I disc up to 72 minutes of moving natural pictures on full screen with audio on Compact Disc quality.

60. A system of viewing video information stored on a removable high capacity storage medium, the system comprising:

an input device configured to read the video information from the high capacity storage medium, the video information stored on the high capacity storage medium having a digital audio component and a digital video component, the digital video component having an intermediate format having a frame rate of substantially 24 frames per second (fps),

the digital video component having been formed by converting input video information having an input format with no added redundant frames or fields;

a graphics processor in data communication with the input device and configured to convert the digital video information in its intermediate format to output video information in an output format, the output format having a frame rate that is greater than or equal to the frame rate of the intermediate format, the graphics processor further being capable of being in data communication with a display device for viewing the output video information in the output format.

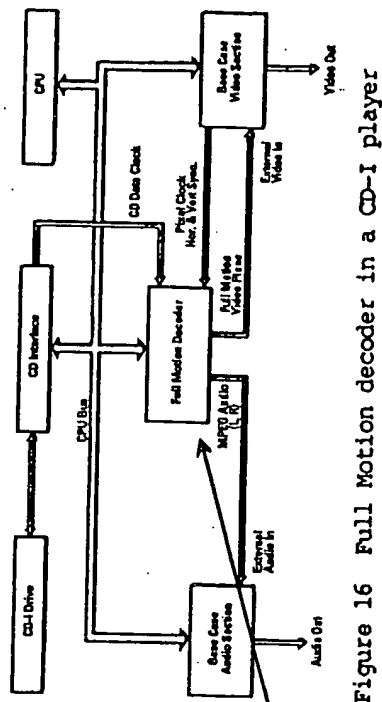


Figure 16 Full Motion decoder in a CD-I player

To support source material in 60 Hz and 50 Hz, several temporal formats can be used. Picture rates of (approximately) 24 Hz and 30 Hz support film and video based source material in 60 Hz, while source material in 50 Hz is supported by a picture rate of 25 Hz.

The Full Motion decoder reconstructs pictures at the picture rate they are coded, i.e. at about 24 Hz, 30 Hz or 25 Hz. The decoder is to produce a video output at a display rate of 60 Hz or 50 Hz. The Full Motion decoder therefore needs to apply a frame rate conversion from the coded picture rate to the required display rate of 60 Hz or 50 Hz. The conversion is applied in temporal direction without any impact on picture size in terms of number of pixels and lines.

With respect to the recitation of the digital video component being formed by converting input video information having an input format having no added redundant frames or fields, even though this is not a concrete structural limitation as discussed above, this limitation is also either disclosed in Van der Meer or obvious based upon Van der Meer in conjunction with the MPEG-1 specification that Van der Meer relies upon and refers to. By stating that film is coded at 24 Hz, encoding directly from 24 fps film is implied. However, even if it is determined that Van der Meer does not contain a specific disclosure of encoding film directly at 24 fps, the suggestion to do so is explicitly provided in the MPEG-1 specification upon which the Van der Meer design is based.

Other independent claims are similarly anticipated by Van der Meer. For example, claim 74 differs from claim 60 only in the recitation of use of a compressed digital format, and the output format having an image dimension different than the intermediate format. The MPEG-1 coding employed by Van der Meer of course uses compression. As stated in the Abstract, "The Full Motion system applies a compression method based upon the MPEG standard." In addition, as discussed above, the system can control the size and position of the display window by adjusting several parameters as described on page 915. Thus, the image dimension in pixels of the output format, *i.e.*, the displayed picture, is different than the image dimension of the stored format, since only a portion of the pixels may be selected.

Corresponding method claims 95 and 109 are similarly anticipated by Van der Meer. System claims 39 and 59 directed to receiving and viewing video information, and corresponding method claims 75 and 94, are also anticipated by Van der Meer in view of the provision of a memory for receiving data separate from a CD-I disc.

Claims directed to the storage medium, *i.e.*, claims 26, 38, 151 and 243 are similarly anticipated. Van der Meer discloses storage at 24 frames per second, which is all that is required by these claims.

It is believed that the Van der Meer article was brought to the attention of Multi-Format by a third party during the pendency of the litigation. This may be the prior art to which Multi-Format was referring in its letter regarding dismissal of the litigation. However, since no IDS has been filed, it is unknown whether this is the case or if Multi-Format was referring to other prior art. Accordingly, it is suggested that the Examiner may wish to consider issuing a requirement for information in accordance with 37 C.F.R. § 1.105 regarding (1) whether Van der Meer was indeed the prior art that was referred to, and, if not, (2) any other prior art Multi-Format is aware of that has not been submitted in this application.

C. The Claims are Anticipated by Japanese Publication No. HEI 2-89478

Japanese Patent Laid-open No. HEI 2-89478 to Canon Inc. ("Canon") (Exhibit 20, including English translation) discloses a high definition digital recording system, and particularly a recording system that supports the recording of 24 frame per second movie film. This reference was published on March 29, 1990, and therefore is prior art under 35 U.S.C. § 102(b). A translation of this reference is enclosed.

On page 3 of the Canon reference, it is explained that typically movies are recorded onto video after having been converted into a television signal of 60 fields per second, and that this decreases the density of recording image information onto the recorded medium. The Canon reference eliminates this problem by recording film material at 24 frames per second. As described at page 8 of the translation, when in a telecine mode, 1375 lines, *i.e.*, an entire image as shown in Figure 2, are recorded in 1/24 of a second. When in a video mode, the timing is changed so as to scan 1125 lines in 1/30 of a second. Thus, in a telecine (film) mode, signals are

recorded at 24 frames per second. The feed speed of the magnetic tape is also changed, with the result being that the available recording time in the telecine mode is 1.25 times that of the video mode. As summarized at the bottom of page 13 and continuing into page 14, it is possible to perform image recording and reproduction supporting recording of a signal of 24 frames per second when supplied from a telecine device and a signal of 30 frames per second when supplied from a high definition camera or video tape recorder.

At page 14, the Canon reference states that the recorded 24 frames per second video data can be viewed as follows:

In order to reproduce the magnetic tape recorded in a telecine mode on a high-definition monitor, it suffices to connect the outputs of the imagery recording and reproducing apparatus to the high-definition monitor via a 2-3 system or other time-based converting device.

Thus, the reference describes viewing a video program which is stored on a recording medium at 24 frames per second by performing time based conversions such as 2-3 pulldown.

The Canon reference describes a telecine device which provides image signals of 24 frames per second at page 8. Thus, this reference describes the digitization of film directly to 24 frames per second, just as set forth in the MPEG-1 standard.

The Canon reference anticipates each of the independent claims in the application. With respect to claim 60, the attached claim chart (copy also attached as Exhibit 26) illustrates the unpatentability of the claim.

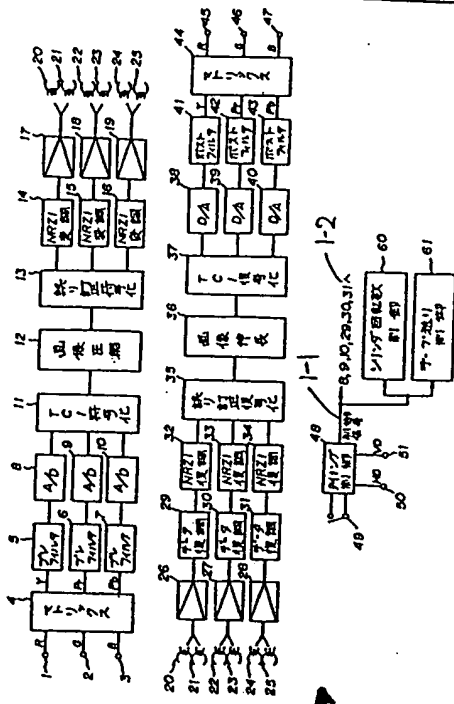
60. A system of viewing video information stored on a removable high capacity storage medium, the system comprising:

an input device configured to read the video information from the high capacity storage medium, the video information stored on the high capacity storage medium having a digital audio component and a digital video component, the digital video component having an intermediate format having a frame rate of substantially 24 frames per second (fps),

the digital video component having been formed by converting input video information having an input format with no added redundant frames or fields;

a graphics processor in data communication with the input device and configured to convert the digital video information in its intermediate format to output video information in an output format, the output format having a frame rate that is greater than or equal to the frame rate of the intermediate format, the graphics processor further being capable of being in data communication with a display device for viewing the output video information in the output format.

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When the selecting switch 49 is turned to a telecine mode, the timing control means 48 outputs a reference horizontal clock HD of 33 KHz to the terminal 50 and outputs a reference vertical clock VD of 24 Hz to the terminal 51 to scan 1375 lines in 1/24 seconds, as shown in FIG. 2. Thereby the telecine device (not shown) connected to the terminals 50 and 51 and synchronized with the reference signals inputs three primary-color image signals of 24 frames per second for sequential scanning to the terminals 1 to 3.

In order to reproduce the magnetic tape recorded in the telecine mode on a high-definition monitor, it suffices to connect the outputs of the image recording and reproducing apparatus to the high-definition monitor via a 2-3 system or other time-base converting device.

The high capacity storage medium is magnetic tape, the input device includes the magnetic heads for reading the data from the tape and the graphics processor includes the decoder shown in the middle portion of Figure 1 in combination with "a 2-3 system or other time-based converting device" as described in the specification. With respect to the limitation that the digital video component was formed by converting input video information having an input format with no added redundant frames or fields, although this is not a limitation to the claimed structure, it is nevertheless disclosed in the Canon reference. The Canon reference specifically describes a telecine device (which converts film to video) that directly provides a 24 frames per second signal.

Other independent claims are similarly unpatentable. With respect to claim 74, it would be obvious to convert the high definition picture to a lower definition version such as NTSC for viewing on a standard monitor as opposed to a high definition monitor. The motivation for such down-conversion is of course to provide a normal resolution NTSC signal for viewing on a NTSC monitor. The signal would otherwise be unwatchable on a normal NTSC monitor.

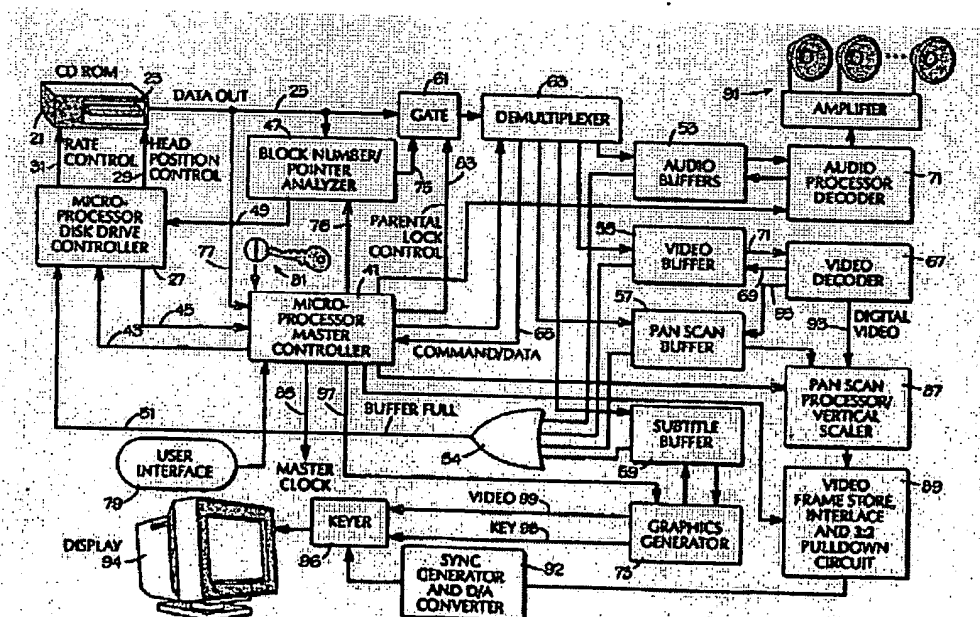
Claim 95 is unpatentable for the same reasons given with respect to claim 60, and claim 109 is unpatentable for the same reasons given with respect to claim 74. System claims 39 and 59 are unpatentable for the same reasons given with respect to claims 60 and 74, respectively, as are corresponding method claims 75 and 94.

Storage medium claims 26, 38, 151 and 243 are all clearly anticipated by the Canon reference for the same reasons given above with respect to the system or method claims. With respect to claims 151 and 242, the effective pixel number of 1920 by 1045 is less than the recited dimension. The Canon reference also anticipates claim 255. Giving the claim its broadest reasonable construction, the conversion step is met due to the presence of the recitations "when

the video information is not received in such a format.” As repeatedly argued by the applicant, this conversion is only done if the video information is not already in 24 frames per second. In addition, the Canon reference discloses a horizontal resolution greater than 600 lines, *i.e.*, a resolution of 1045 lines during viewing, the output format has a frame rate greater than or equal to 24 frames per second production format.

D. The Claims are Unpatentable Over U.S. Patent No. 5,463,565 to Cookson

U.S. Patent No. 5,463,565 to Cookson (copy attached as Exhibit 21) discloses an optical disc format which permits multiple versions of motion pictures which can be played back using multiple standards from a single disc. This system is illustrated in Figure 2, which is reproduced below. Cookson is prior art under 35 U.S.C. 102(e) in view of its filing date of October 29, 1993.



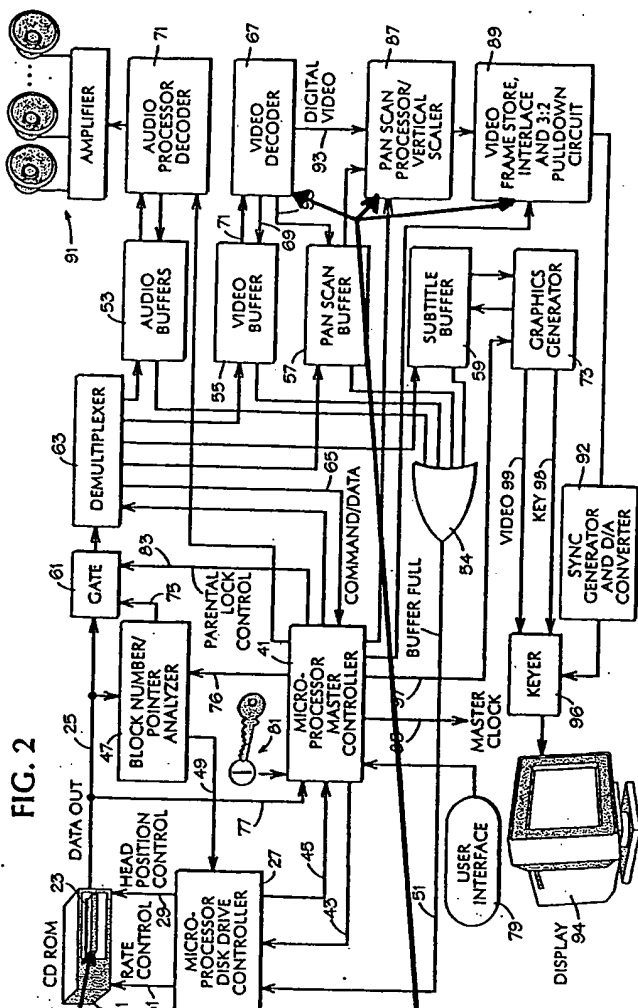
Cookson describes a system which employs MPEG compressed video, as noted at col. 6, lines 1-2. At col. 6, lines 18-23, it is indicated that a motion picture film will be represented in digital form on a disc at 24 frames per second. As stated at col. 9, lines 12-16, the video may be coded in either MPEG-1 or MPEG-2. In addition to being recorded at 24 frames per second, the

information stored on a disc includes frames having a "master" aspect ratio of 16:9, *i.e.*, a widescreen image, as stated at col. 9, lines 19-22.

The optical disc having a video program stored on it at 24 frames per second and a widescreen format is viewed using the device of Figure 2. The disc is read by a CD ROM drive 21 and the signal processed to provide digital video out from a video decoder 67. Pan scan processors/vertical scaler circuitry 87 selects the appropriate dimensions of the image to be viewed. This is described in detail at col. 9, line 17-col. 10, line 20. As described, in order to select a desired widescreen, "letter box" or 4:3 image and to select the appropriate number of horizontal lines for a given standard which is selected (*e.g.*, HDTV in one of several formats, NTSC, PAL and SECAM, as noted at col. 12, line 24), it is noted at col. 9, line 49 that in many cases, it will be necessary to form a number of horizontal scan lines which is different from the number of horizontal lines represented on the disc by vertical scaling. Thus, the output of the processor/scaler 87 is uncompressed digital video at the desired aspect ratio and having the desired number of horizontal lines required for the selected television standard, as stated at col 10, line 17.

The output from the scaler 87 is provided to a 3:2 pulldown circuit 89. As described at col. 10, lines 21-45, this circuit converts the 24 frames per second motion picture information into 60 fields per second video for viewing in a NTSC format. Conversion to PAL is also described. As noted above, the patent also contemplates the use of numerous other standards in addition to NTSC and PAL, such as various HDTV standards. Thus, the circuit of Figure 2 operates to convert both the frame rate and pixel dimensions of data read from a disc. *See also* col. 17, lines 46-60, col. 19, lines 25-27 and col. 27, lines 5-22. Cookson anticipates claim 60, as illustrated in the claim chart below (copy also attached as Exhibit 27).

FIG. 2



60. A system of viewing video information stored on a removable high capacity storage medium, the system comprising:

an input device configured to read the video information from the high capacity storage medium, the video information stored on the high capacity storage medium having a digital audio component and a digital video component, the digital video component having an intermediate format having a frame rate of substantially 24 frames per second (fps),

the digital video component having been formed by converting input video information having an input format with no added redundant frames or fields;

a graphics processor in data communication with the input device and configured to convert the digital video information in its intermediate format to output video information in an output format, the output format having a frame rate that is greater than or equal to the frame rate of the intermediate format, the graphics processor further being capable of being in data communication with a display device for viewing the output video information in the output format.

The MPEG standards are designed to allow picture frames to be encoded with a minimal number of bits. Frame information is required at a constant rate. For example, if a motion picture film is represented in digital form on the disk, 24 frames will be represented for each second of play.

3:2 pulldown is the technique used to convert 24-frames-per-second motion pictures to 60-fields-per-second video (the nominal values of 24 and 60 are in reality 23.97 and 59.94); to convert data representative of a motion picture to an NTSC format, frame information (data blocks) must be read at the rate of 24 per second. (As is standard in the art, such a transformation applies frame 1 of the source material to fields 1, 2 and 3 of the video signal, frame 2 of the source material to fields 4 and 5 of the video signal, frame 3 of the source material to fields 6, 7 and 8, etc., thus yielding 60 fields for 24 original frames.) On the other hand, conversion to the PAL standard is relatively simple, and 3:2 pulldown is not required. The PAL standard requires 50 fields per second. Frames are processed at the rate of 25 per second, and every frame is used to form two fields. (Because motion picture films are shot at the rate of 24 frames per second yet processed at the rate of 25 per second when converting to PAL, everything which occurs on the TV screen takes place 4% faster in Europe than it does in the United States.) Whether the frames are processed at the rate of 25 per second or 24 per second is controlled by changing the frequency of the MASTER CLOCK signal on bus 85.

* not a structural limitation

The storage medium having a frame rate of substantially 24 frames per second is read by the input device, *i.e.*, the CD ROM drive, and converted both in frame rate and pixel dimensions by the decoder 67, scaler 87 and pulldown circuit 89 for display on display 94.

The other independent claims are similarly anticipated. With respect to claim 74, as discussed above, cols. 9 and 10 contain a very thorough discussion regarding outputting a signal that has pixel dimensions different from the storage signal. As stated at col. 10, line 13:

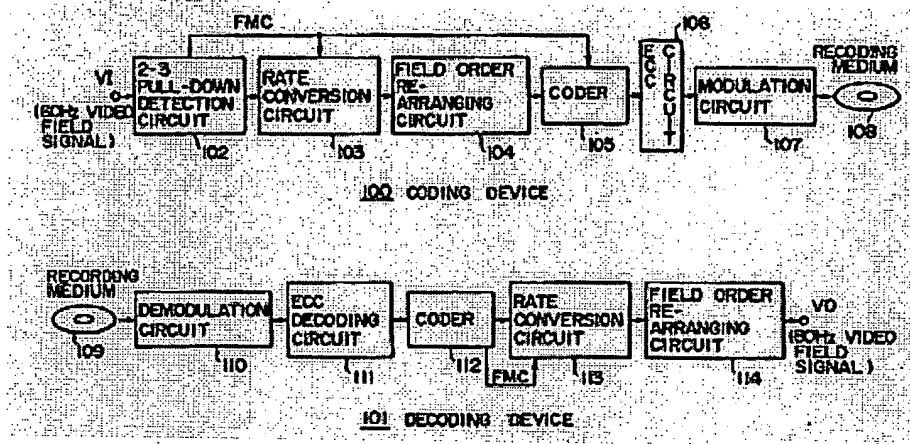
It is in pan scan processor/vertical scaler 87 that the number of horizontal lines is adjusted and the aspect ratio is changed. The digital video is furnished by video decoder 67 and the pan scan information, if it is required, is provided buffer 57. The output of circuit 87 consists of uncompressed digital video, in the desired aspect ratio and represented by the number of horizontal lines required for the selected television standard.

Adjusting the number of horizontal lines inherently changes the image dimension in pixels, thus meeting the recitation of claim 74. Claim 95 is anticipated for the same reasons given with respect to claim 60, and claim 109 anticipated for the same reasons given with respect to claim 74. System claims 39 and 59 are anticipated for the same reasons given with respect to claims 60 and 74, respectively, as are claims 75 and 94. All of the storage medium claims, namely, 26, 38, 151 and 243 are also clearly anticipated by Cookson. Method claim 255 is also anticipated, as each of the HDTV formats discussed in the patent has a horizontal resolution greater than 600 lines.

E. The Claims are Unpatentable Over U.S. Patent No. 5,461,420 to Yonemitsu

U.S. Patent No. 5,461,420 to Yonemitsu (Exhibit 22) was cited during the prosecution of the parent '079 reissue patent. It is directed to an apparatus for coding and decoding a digital video signal derived from a motion picture film source. It qualifies as prior art under 35 U.S.C. § 102(e) in view of its filing date of September 17, 1993.

Yonemitsu discloses a system for receiving a film-based video signal, removing redundant fields from the film-based signal and storing a 24 frame per second video signal on a storage medium. For decoding, the 24 frame per second storage medium is played back and certain fields of the read out video signal are repeated in order to provide a 60 fields per second signal for display on a standard NTSC display. The basic arrangement is illustrated in Figure 3, reproduced below.



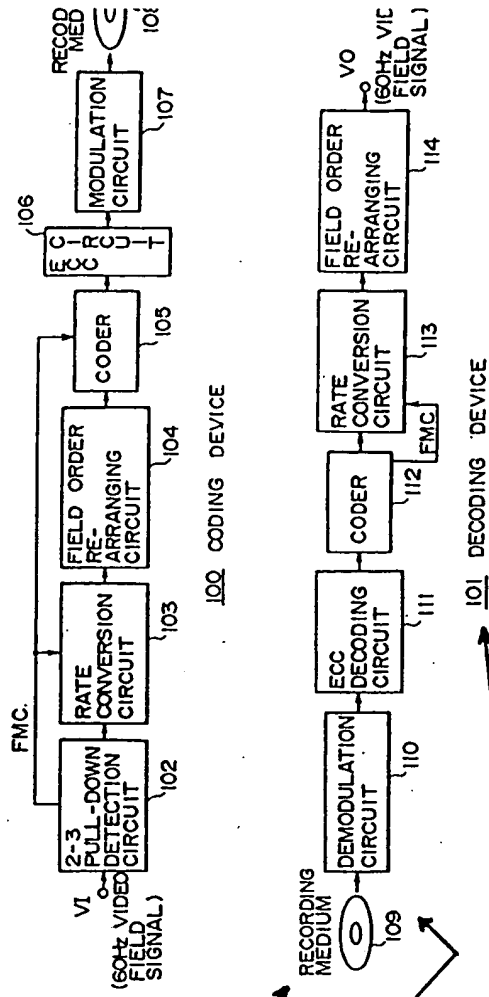
Although Yonemitsu was cited during prosecution of the parent '079 reissue patent, the claims of that patent all include a positive limitation regarding conversion of a video signal having no added redundant frames or fields, whereas Yonemitsu is specifically directed to a system having an encoder which receives a video signal having redundant fields. However, as discussed above in connection with recapture, the claims of the current reissue application do not include any such positive limitation with respect to claimed structure or claimed steps. Rather, the claims merely require a storage medium having 24 frames per second video stored on it. Yonemitsu clearly describes such a storage medium. As set forth at column 5, lines 58-65, a picture signal having a frame rate of 24 Hz is compressed and recorded onto a recording medium 108. Upon playback, as described at column 5, line 66-column 6, line 14, the 24 Hz pictures are decoded and converted into a video signal with a field rate of 60 Hz for playback.

Yonemitsu employs the MPEG-2 standard for the coding apparatus and decoding apparatus. This standard builds upon the MPEG-1 standard and is backwards compatible with it. Many details of this standard are set forth in the patent beginning at column 14. As set forth at column 15 in table 4, various different frame rates are permitted for the storage of data. The patent itself is directed to the storage of data at the permitted rate of 24 frames per second.

In fact, the MPEG-2 standard as described in Yonemitsu (and mentioned in Cookson) is precisely the standard which is employed in DVDs, which were asserted by Multi-Format to infringe the claims of the parent '079 reissue and which Multi-Format apparently believes are covered by claims of the pending reissue application. Although the final MPEG-2 standard was not formally adopted until 1994, its content was well known prior to final adoption as an ISO/IEC standard, as evidenced by the detailed disclosure in Yonemitsu. Multi-Format is thus attempting to cover products using a coding standard whose relevant portions were already in the prior art. In addition, although not discussed in Yonemitsu, the MPEG-2 standard supports HDTV, as stated in an ISO press release dated July 16, 1993 (copy attached as Exhibit 28). The press release is also listed on the attached PTO Form 1449.

As is the case with the references discussed above, Yonemitsu anticipates most of the independent claims of the reissue application. A claim chart illustrating the correspondence of Yonemitsu to claim 60 is attached as Exhibit 29 and set forth below.

FIG. 3



The field order re-arrangement circuit 104 converts the signal from the rate conversion circuit 103 into a progressive (non-interlaced) picture signal having a frame rate of 24 Hz. The encoder 105 then compresses and codes the picture signal, and feeds the result to the ECC circuit 106, which adds error correction codes. The modulation circuit 107 modulates the signal from the ECC circuit for recording on the recording medium 108.

The decoding apparatus 101 receives the signal reproduced from the recording medium 109. The recording medium 109 is the same as, or is derived from, the recording medium 108 on which the signal generated by the coding apparatus 100 is recorded. The reproduced signal is demodulated by the demodulation circuit 110, and fed to the ECC decoding circuit 111, where error detection and correction is applied. The decoder 112 decodes the signal from the ECC decoding circuit into pictures with a frame rate of 24 Hz. The rate conversion circuit 113 converts the picture signal with a frame rate of 24 Hz into a video signal with a field rate of 60 Hz. The field order re-arrangement circuit 114 returns the field order of the video signal with a 60 Hz field rate from the decoder 112 to that of the coder input signal VI, and provides the decoder apparatus output signal VO with a field rate of 60 Hz.

60. A system of viewing video information stored on a removable high capacity storage medium, the system comprising:

an input device configured to read the video information from the high capacity storage medium, the video information stored on the high capacity storage medium having a digital audio component and a digital video component, the digital video component having an intermediate format having a frame rate of substantially 24 frames per second (fps),

the digital video component having been formed by converting input video information having an input format with no added redundant frames or fields;

a graphics processor in data communication with the input device and configured to convert the digital video component in its intermediate format to output video information in an output format, the output format having a frame rate that is greater than or equal to the frame rate of the intermediate format, the graphics processor further being capable of being in data communication with a display device for viewing the output video information in the output format.

*not a structural limitation

Again, it is noted that the fact that Yonemitsu is directed to starting with a video signal which contains redundant fields or frames and encodes it to remove the redundant fields and frames for recording onto the recording medium is not relevant to application claim 60 and other claims of the reissue application, since the recitation regarding the video components having been formed by converting input video information having an input format with no added redundant frames or fields does not serve in any way to limit the actually claimed structure. Thus, the claim merely defines a storage medium having a video component with a frame rate of substantially 24 frames per second, and a graphics processor to convert the digital video component to an output format having a frame rate that is greater than or equal to the frame rate of the intermediate format. This is precisely what the Yonemitsu system does. The recording medium 109 having a video signal of 24 frames per second is processed by the decoding device 101 to produce a video signal of 60 fields per second, *i.e.*, a frame rate of 30 frames per second.

Other independent claims are similarly anticipated. This includes method claim 95 which corresponds to claim 60, system claim 39 and corresponding method claim 75 (given the broadest reasonable interpretation, the demodulation circuit 110 is "signal receiving device") and storage medium claims 26, 38, 151 and 243. With respect to systems claims 74 and 59 and method claims 94 and 109, Yonemitsu does not disclose use of an output format having a dimension in pixels that is different from the dimensions of the intermediate format. However, the recitation in storage medium claim 36 regarding the image dimension of the output format is irrelevant in terms of defining the storage medium, and is therefore anticipated by Yonemitsu.

F. The Dependent Claims are Also Unpatentable

Multi-Format has numerous dependent claims pending in the reissue application. Many of these claims are unpatentable under 35 U.S.C. § 112, first paragraph, as discussed above.

In addition, these claims are unpatentable over the prior art discussed above. Although in many cases, an individual prior art reference anticipates the claims, with respect to numerous features the various prior art references describe use of such features in a fashion in which it would clearly be obvious to incorporate into the systems or methods described in other prior art references. For example, the MPEG-1 standard sets forth numerous features which of course are intended to be incorporated into actual products, and Van der Meer and Cookson specifically refer to the use of MPEG-1 encoding. Similarly, Cookson and Yonemitsu specifically refer to the use of MPEG-2 coding, and the features of MPEG-2 as described in Yonemitsu could of course be employed in the system of Cookson.

Because the dependent claims generally parallel one another with respect to their dependency off of the various independent claims, the discussion below will refer first to claims which depend from voluntarily elected claim 60 and reference other parallel dependent claims.

Claims 61-63 refer to the graphics processor as the component of a personal computer, that it is software-based and hardware-based, respectively. The references clearly disclose such implementations. The MPEG-1 standard at Section 1.1 indicates that it "provides flexibility for use with personal computer and workstation displays." The standard is certainly not limited to such implementation. In addition, the other references disclose dedicated systems. Personal computers of course would typically be software based and the dedicated devices either software or hardware-based. Other claims which correspond to these claims include claims 40-42, 76-78 and 96-98.

Claims 64-67 recite different types of storage media. The MPEG-1 standard, again at Section 1.1, states that it is primarily applicable to digital storage media "such as compact disc, digital audio tape, and magnetic hard discs." It is also stated that it can be used more widely than

this because of the generic approach taken. Van der Meer, Cookson and Yonemitsu all disclose the use of optical discs and the Canon reference discloses the use of magnetic tape. It is clear that numerous different types of storage media could be employed. Other claims containing similar limitations include claims 27-31, 43-47, 79-82 and 99-102.

Claim 68 recites that the digital video component is stored in a compressed digital format. Of course, a primary feature of the MPEG-1 standard is the compression technology employed. Each of the other references also employs compression, such as MPEG-1, MPEG-2 or other type of compression. Other claims including a recitation regarding compression include claims 32, 50, 85 and 103.

Claim 69 refers to the compressed digital format as an MPEG-type format. This is an effort to cover DVDs, which employ MPEG-2 compression. However, as noted numerous references employ such compression, of course including the MPEG-1 standard itself and the MPEG-2 standard referenced in Yonemitsu. Other claims including this recitation are claims 33, 51, 86 and 104.

Claim 70 recites that the output format "is selected from the group consisting of" different standards. To meet this recitation, a prior art reference need only disclose one standard. Each of the prior art references discloses at least one of the recited standards. It is also noted that Cookson is specifically directed to selectably providing an output in accordance with any one of numerous different standards, as described, *e.g.*, at column 12, lines 34-44. The MPEG-1 Standard and Van der Meer also contain discussions regarding the use of different standards, *e.g.*, NTSC and PAL.

It is also noted that as is the case with claim 60, the definition of the output format should be ignored, since it in no way limits the actual claimed structure or actual claimed steps. Other claims containing a similar limitation include claims 34, 52, 87 and 105.

Claim 71 includes various image dimensions in pixels. Again, these recitations should be given no weight. In any event, pixel sizes do not distinguish over any of the references, since the references either anticipate the pixel sizes specifically or most certainly render them obvious. Moreover, each of Cookson, the Canon reference, and Yonemitsu with the MPEG-2 press release specifically indicates use with HDTV signals, which would have pixel dimensions including the recited dimensions. Other claims including such recitation include claims 35, 53, 88 and 106.

Claim 72 as amended recites that the image dimension of the output format is different than that of the intermediate format. Again, this recitation should be given no weight whatsoever, as it fails to concretely limit the claimed structure of claim 60. In any event, numerous ones of the references, including the MPEG-1 standard, Van der Meer and Cookson disclose use of an output format which is different from the storage format. Claims corresponding to this recitation include 36, 57, 92 and 107.

Claim 73 recites that the input format does not have an image dimension in pixels. Again, this recitation does not limit the claimed structure and should be ignored. In any event, the MPEG-1 standard and the Canon patent describe an input from film, which also does not have an image dimension in pixels. Claims corresponding to this claim include claims 37, 58, 93 and 108.

Claim 126 recites that the output format has a frame rate that is less than the frame rate of the intermediate format. Again, this recitation does not limit the claimed structure and should be ignored. In any event, such a recitation is anticipated by either Cookson or the Canon reference

since both disclose use of HDTV storage. It would be necessary to reduce the frame rate of such signals for viewing on standard NTSC monitors. In addition, there is no disclosure at all in the specification to support this claim, since the specification discloses use of a 24 fps intermediate format, and there is no disclosure of use of an output format having a lower frame rate. Other claims including this recitation include claims 113 and 114.

Claim 127 recites that the input device is located at a first location and the graphic processor located at a geographically separated location. Such a configuration is clearly shown by the MPEG-1 standard, which illustrates storage and/or transmission after encoding in Figure D.1. In addition, the specification provides no support whatsoever for this recitation. As discussed above, Figure 7 in no way discloses storage of 24 fps material at a remote location.

The MPEG-1 standard clearly contemplates that encoded data may be transmitted, and not merely immediately stored. Transmission of course could be by numerous different methods, including broadcast, satellite or other networks. Thus, claims including recitations regarding one part of the system or another being physically remote or the use of broadcast, satellite or other form of transmission are all clearly anticipated by the MPEG-1 standard. Claims including such recitations include claims 48, 49, 110, 54-56, 89-91, 115-125, 84, 127, 128 and 131-150.

Claims having recitations such as those discussed above are obviously intended to cover downloading of video data to personal computers. Not only is such a configuration not disclosed in the specification, the transmission of encoded data to remote locations is clearly contemplated by the MPEG-1 standard, thus rendering any such claims either anticipated or obvious.

Other claims including similar limitations include claim 49, 84, 115, 116, 128 and 131-150.

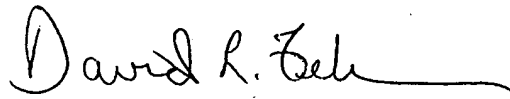
VII. SUMMARY AND CONCLUSION

In summary, the Protestors submit that all of the claims in the reissue application are unpatentable for numerous different reasons, including restriction acquiescence, recapture estoppel, 35 U.S.C. § 112, prior art of record, and prior art not of record. All of the claims should be rejected.

The Patent Office is authorized to charge the cost, if any, of this Protest and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing 16716-0000006.

Dated: July 12, 2004

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Form PTO-1449

INFORMATION DISCLOSURE CITATION
IN AN APPLICATION

(Use several sheets if necessary)

Docket Number 167160000001

Application Number 10/004,046

Applicant

WASHINO et al.

Filing Date October 24, 2001

Group Art Unit 2614

Mailing Date July 12, 2004

U.S. PATENT DOCUMENTS

Examiner Initials	Ref. No.	Date	Document No.	Name	Class	Subclass	Filing Date If Appropriate
	1.	10/24/1995	5,461,420	J. Yonemitsu et al.			09/17/1993
	2.	10/31/1995	5,463,565	C. Cookson et al.			10/29/1993
	3.	07/27/1999	5,930,445	E. Peters et al.			07/01/1992

FOREIGN PATENT DOCUMENTS

Examiner Initials	Ref. No.	Date	Document No.	Country	Class	Subclass	Translation YES NO
	4.	03/29/1990	2-89478	Japan			X

OTHER DOCUMENTS

(including author, title, Date, Pertinent Pages, Etc.)

Examiner Initials	Ref. No.	Title
	5.	International Standard ISO/IEC 11172-1 and 11172-2, <i>Information Technology – Coding of Moving Pictures and Associated Audio for Digital Storage Media at up to about 1,5 Mbit/s – Part 1 (Systems), Part 2 (Video)</i> , 1 st ed., August 8, 1993.
	6.	Jan van der Meer, <i>The Full Motion System for CD-I</i> , IEEE Transactions on Consumer Electronics, Vol. 38, No. 4, November 1992.
	7.	International Organisation for Standardisation, <i>Press Release – MPEG New York Meeting</i> , July 16, 1993.

EXAMINER:

DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.

EXHIBITS ATTACHED TO PROTEST UNDER 37 C.F.R. § 1.291(a)
In re Reissue Patent Appl. No. 10/004,046

- Exhibit 1: Multi-Format, Inc.'s Complaint for Patent Infringement
- Exhibit 2: Multi-Format, Inc.'s Licensing Program, accompanied by cover letter to one recipient
- Exhibit 3: Multi-Format, Inc.'s letter regarding dismissal of lawsuit, enclosing copy of Multi-Format's Notice of Voluntary Dismissal of All Defendants
- Exhibit 4: List of Claims Pending in Present Application, Also Showing Dependencies
- Exhibit 5: April 10, 1995 Office Action in U.S. Patent Application No. 08/298,104 (which issued as U.S. Patent No. 5,537,157)
- Exhibit 6: August 11, 1995 Response to Office Action in U.S. Patent Application No. 08/298,104 (which issued as U.S. Patent No. 5,537,17)
- Exhibit 7: *In re Watkinson*, 900 F.2d 230, 14 U.S.P.Q.2d 1407 (Fed. Cir. 1990)
- Exhibit 8: *In re Orita*, 550 F.2d 1277, 193 U.S.P.Q. 145 (C.C.P.A. 1977)
- Exhibit 9: *In re Mead*, 581 F.2d 251, 198 U.S.P.Q. 412 (C.C.P.A. 1978)
- Exhibit 10: *In re Doyle*, 293 F.3d 1355, 63 U.S.P.Q.2d 1161 (Fed. Cir. 2002)
- Exhibit 11: *In re Weiler*, 790 F.2d 1576, 229 U.S.P.Q. 673 (Fed. Cir. 1986)
- Exhibit 12: *Ex parte Pagilagan*, Appeal No. 2001-1752, 2002 Pat. App. LEXIS 198 (B.P.A.I. 2002)
- Exhibit 13: June 1, 2004 Response to Office Action in Present Application, U.S. Reissue Patent Application No. 10/004,046
- Exhibit 14: *Pannu v. Storz Instruments, Inc.*, 258 F.3d 1366, 59 U.S.P.Q.2d 1597 (Fed. Cir. 2001)
- Exhibit 15: *Hester Indus., Inc. v. Stein, Inc.*, 142 F.3d 1472, 46 U.S.P.Q.2d 1641 (Fed. Cir. 1998)
- Exhibit 16: *In re Clement*, 131 F.3d 1464, 45 U.S.P.Q.2d 1161 (Fed. Cir. 1997)
- Exhibit 17: U.S. Patent No. 5,930,445 to Peters et al.
- Exhibit 18: ISO/IEC 11172 (pts. 1 & 2) (1st ed. Aug. 1, 1993) ("MPEG-1 standard")

- Exhibit 19: Jan van der Meer (of Philips Consumer Electronics, Eindhoven, The Netherlands), *The Full Motion System for CD-I*, IEEE Transactions on Consumer Electronics, vol. 38, no. 4 (Nov. 1992) ("Van der Meer")
- Exhibit 20: Japanese Patent Laid-open No. HEI 2-89478, accompanied by English translation ("Canon")
- Exhibit 21: U.S. Patent No. 5,463,565 to Cookson et al. ("Cookson")
- Exhibit 22: U.S. Patent No. 5,461,420 to Yonemitsu et al. ("Yonemitsu")
- Exhibit 23: August 19, 1999 Supplemental Information Disclosure Statement (IDS) in U.S. Reissue Patent Application No. 09/113,615 (which issued as U.S. Patent No. RE 38,079)
- Exhibit 24: Claim chart illustrating correspondence of MPEG-1 standard to claim 60 of present application
- Exhibit 25: Claim chart illustrating correspondence of Van der Meer to claim 60 of present application
- Exhibit 26: Claim chart illustrating correspondence of Canon to claim 60 of present application
- Exhibit 27: Claim chart illustrating correspondence of Cookson to claim 60 of present application
- Exhibit 28: International Organisation for Standardisation, *Press Release – MPEG New York Meeting* (July 16, 1993)
- Exhibit 29: Claim chart illustrating correspondence of Yonemitsu to claim 60 of present application